3 1761 08167617 3

Natal

Province



Descriptive Guide & Official Hand-Book.

Presented to the

UNIVERSITY OF TORONTO
LIBRARY

by the

ONTARIO LEGISLATIVE
LIBRARY

1980

LEGISLATIVE LIBRARY
DISCARDED

EDUCATIONAL LIBRARY

Digitized by the Internet Archive
in 2011 with funding from
University of Toronto

http://www.archive.org/details/natalprovincedes00tatl

NATAL

DESCRIPTIVE GUIDE

AND

OFFICIAL HANDBOOK


EX·UNITATE·VIRES
NATAL
MCMXI
SINGLETONS' DURBAN

NATAL

PROVINCE

LEGISLATIVE LIBRARY
ONTARIO

DESCRIPTIVE GUIDE AND OFFICIAL HAND-BOOK

Edited by A. H. TATLOW, Manager—Publicity Dept., South African Railways

54019

PUBLISHED BY AUTHORITY

LEGISLATIVE LIBRARY
ONTARIO

DURBAN, NATAL
SOUTH AFRICAN RAILWAYS PRINTING WORKS

MCMXI

LIBRARY
FEB
8
1982
UNIVERSITY OF TORONTO
DT
868
T3

EDITOR'S NOTE

"GOOD wine needs no bush," and Natal needs no extravagant advertisement. The aim of the editor has been to give the public a thoroughly reliable volume descriptive of the country, and dealing with the commerce, life and prospects of the Province of Natal, indicating to the intending emigrant, and to the business man, what chances there are of success, should he be inclined to take up his residence in Natal, or to extend his commercial operations in the "Garden Colony."

A strict adherence has been made to facts, and every effort has been made to bring the information up-to-date, and to supply it in as concise a form as possible, combined with clearness and reliability. Accuracy has been the principal object, and the statistics have only been drawn from official sources.

The compiler is indebted to the following gentlemen—who, out of their expert knowledge, have contributed chapters on special subjects, which it is anticipated will greatly enhance the permanent value of the work—Mr. C. J. Bird, C.M.G., for notes regarding: "The Early History of Natal"; Mr. J. Stuart, for the chapter on "Natives"; Dr. E. Warren, D.SC. (Lond.), Director of Government Museum, Pietermaritzburg, on "Mammals and Birds"; Mr. Claude Fuller, F.E.S., for information on "Fruit Growing in Natal"; Mr. C. J. Gray, "Mining in Natal"; Mr. H. Choles, "Agriculture and Land Settlement"; and Mr. William Anderson, F.R.S.E., F.G.S., late Government Geologist, Natal, on "Notes on the Geology of the Drakensberg."

Acknowledgement must also be made to the authors or editors of former books on Natal, including Mr. J. Forsyth Ingram, F.R.G.S., and Mr. C. W. Francis Harrison, F.R.G.S.

The editor also takes this opportunity of thanking the officers of the several Government and Municipal departments, and others who have so willingly contributed useful information during the preparation of this work.

It is worthy of mention that the whole of the work connected with the printing and illustrating of this volume has been done in the Province, and the compiler gladly records his thanks to the officer-in-charge of the Railway Printing Works at Durban for the care and thought he has bestowed on the work.

A. H. T.

Contents

			PAGES
Chapter	I.	The Early History of Natal	1— 26
,,	II.	Durban Harbour from Roadstead to Quay	27— 36
,,	III.	The Port: Its Capacity and Work	37— 54
,,	IV.	Durban: South Africa's Seaside Resort	55— 96
		Description of a Round tour from the Point to the Central Railway Station, via Point Road, West Street (East), Bay Embankment, Albert Park, and the Berea	78— 96
,,	V.	Durban to Pietermaritzburg	97—122
		Inchanga to Pietermaritzburg	114—122
,,	VI.	The City of Pietermaritzburg	123—144
,,	VII.	Pietermaritzburg to Mooi River	145—160
,,	VIII.	War District: Mooi River to Ladysmith	161—184
		Colenso: Its Battlefields	173—177
,,	IX.	Historic Ladysmith	185—194
		Ladysmith to Charlestown	195—204
,,	X.	Towards the Rand	205—228
,,	XI.	To Harrismith, Bethlehem and Kroonstad—The Orange Free State Line	229—242
,,	XII.	From South Coast Junction to Isipingo—Including the Bluff Line	243—245
		Isipingo to Lower Umkomaas	245—249
		Lower Umkomaas to Alexandra Junction and the Umzinto Branch	250—254
		Alexandra Junction to Port Shepstone	254—260
		Alfred County Railway	260—262
,,	XIII.	North Coast Branch Line to Zululand	263—288
,,	XIV.	Branch Railways—Richmond Branch	289—292
		Natal-Cape Line	292—299
		The Stuartstown Railway	299—301
		Greytown Branch and beyond	302—310
		Upper Tugela Branch	— 310
		Dundee and Vryheid Branch	311—314
		The Utrecht Railway	314—315
		The Northern Territories of Natal	316—320
,,	XV.	The Drakensberg—"The Roof of Africa"	321—349
		Notes on the Geology of the Drakensberg Range	349—358
,,	XVI.	Trout Fishing in Natal	359—374
,,	XVII.	Agriculture	375—411
		Fruit Growing in Natal	412—423
		Agricultural Research and Education	424—425
		Land Settlement	426—434
,,	XVIII.	Mining in Natal	435—445
,,	XIX.	Natives and Indians	446—470
,,	XX.	Education	471—474
,,	XXI.	The Mammals and Birds of Natal	475—503
,,	XXII.	Defence	504—518
,,	XXIII.	History of the Parliament of Natal	519—524
,,	XXIV.	Public Works Department	525—529
,,	XXV.	Railways	530—543
,,	XXVI.	Postal and Telegraph	544—550
,,	XXVII.	General Information	551—570

List of Illustrations

	PAGE
Natal	*Frontispiece*
The Silver Lining	xii.
Group of Pietermaritzburg Colonists of the 'Forties	3
Brig "Salisbury" crossing the Bar	4
Battle of the Tugela, 1838	6
Old Military Cemetery, Durban	7
Dick King	8
Longmarket Street, Pietermaritzburg	10
Legislative Council, 1863	12
Legislative Assembly, 1910	13
First Election in Natal	14
Old Legislative Council Building	14
Group taken at Government House about 1865	15
Zulu War Memorial	18
Government Houses—past and present.	20
Parliament Buildings	22
Colonial Office Buildings	23
The National Convention	26
Port Natal, 1875-1910	29
Pile Driving	30
Train of Concrete Blocks	31
Diver	31
Durban Harbour from the Bluff	32
R.M.S. "Armadale Castle"	33
Paul's Wharf (central)	34
Passengers Landing	36
Congella Wharf	38
Cranes at Port Natal	39
Main Wharf at "A" Shed	40
Quayside Road	41
Train of 25-ton Boilers	41
Bond Store	42
Floating Dock	42
Floating Workshop	43
Dredger at work in the Bay	43
Departure of Mail Boat	44
Visit of Naval Squadron	46
Shipping Maize	48
General View of Wharves	49
Whaling	50
Entrance to Harbour	51
Coaling Plant	52
Coaling Tip at Bluff	53
Public Buildings, Point, Durban	54
Durban, looking East	56
Sir Benjamin D'Urban	56
Old Durban (West Street)	57
Rickshas plying for hire	58
Marine Hotel	58
Durban Streets	59
Tramway Power Station, Durban	60
Municipal Buildings, Durban	62
Educational Establishments, Durban	63
Places of Worship, Durban	64
Dr. Mackenzie's Sanatorium	65
Sanatorium, Durban	65
Government Hospital, Durban	65
The Press	67
New Law Courts	68
Parks, Durban	69
Durban Sports	70
Yachting on Durban Bay	71
Fountain, Durban Beach	72

	PAGE
Durban Beach, North	72
Durban Beach, South	73
Pier, Durban Beach	73
Bathing Booths, Durban Beach	73
Durban Beach.	74—75
Ocean Beach Rink	76
Durban Bay from Town Hall	76
Minstrels, Durban Beach	77
West Street (central)	77
Durban from the Berea	78
Trams at Post Office	79
The Point, from the Post Office	80
Durban Municipal Buildings	81
His Majesty's Theatre	82
Durban Municipal Buildings (Interior)	83
"The Wrestlers," Durban Art Gallery	84
Durban Municipal Buildings (Interior)	85
Public Gardens, Durban	86
Post Office	86
Information Bureau	87
Bay Embankment, Durban	87
Embankment from the Bay	87
Durban Club	88
Y.M.C.A. Buildings, Durban	88
Yachting Jetty, Durban Bay	88
Yachts at the Jetty	89
Slipway, Durban Bay	89
Theatre Royal, Durban	89
Botanic Gardens, Durban	90
Musgrave Road, Durban	91
Florida Road, Durban	92
Trams on Musgrave Road, Berea	92
King's House, Berea, Durban	93
Zoological Gardens, Durban	94
Horseshoe Curve, Berea, Durban	95
Old Military Cemetery, Durban	95
Offices of the South African Railways, Durban	96
Berea Road Station	97
Congella Wharf	98
Congella Railway Station.	99
Umbilo River Bridge	99
Sugar Refinery, South Coast Junction	99
Milling Co.'s Works	99
Brewery	99
Umhlatuzan River	100
Deep Cutting at Sea View	101
Train passing through Fruit Farms at Bellair	101
Road Bridge, Sea View	101
Sea View	102
Bellair	103
Malvern	104
Fruit Farms near Malvern	105
Sarnia	106
Mariannhill Monastery	108
Palmiet Falls	110
Fields Hill	111
The Gorge, Krantz Kloof	111
Hill Crest Station	112
Botha's Hill Railway Cutting	112
Wattle Plantation	113
"Valley of a Thousand Hills"	113
Umlaas Falls	115
Cato Ridge Station	116

LIST OF ILLUSTRATIONS *-continued*

	PAGE
Umlaas River	117
Camperdown	118
Haymaking and loading up at station	118
Mid Illovo Light Railway	119
Umlaas Road Station	119
Maize cultivation at Umlaas Road	120
Umlaas Falls	121
Natal Bisley	122
Opening of Town Hall, Pietermaritzburg	124
Municipal Buildings, Pietermaritzburg	125
Pietermaritzburg	126
Public Buildings, Pietermaritzburg	127
Alexandra Park, Pietermaritzburg	129
Sports in the Park, Pietermaritzburg	130
Memorial to Queen Victoria	131
Monument to Sir Theophilus Shepstone	131
Langalibalele Rebellion Memorial	131
Botanical Gardens, Pietermaritzburg	132
Natal Museum	134
Pietermaritzburg Museum	136
Places of Worship, Pietermaritzburg	139
Interior of Theatre, Pietermaritzburg	140
Boating on the Umsindusi	140
Government Day Schools, P'maritzburg	141
Cadets in front of Supreme Court Bldgs.	143
Ricksha Stand	144
Volunteers in the Park	144
Natal Mounted Police	144
Pietermaritzburg Railway Station	145
Military Cemetery, Pietermaritzburg	146
Pietermaritzburg from the Town Hill	146
Sweetwaters	147
Falls at Sweetwaters	147
Main Line near Boshoffs Road	148
Mine Props for the Rand	148
Wattle Plantation	149
St. Anne's Diocesan College for Girls	149
Hilton College	150
The College, Government Experimental Farm, Cedara	151
Falls near Hilton College	151
Howick Falls	152
Lower Falls, Howick	153
Karkloof Falls	154
Lion's River Valley	154
Preparing the ground for Maize	155
Michaelhouse Diocesan School for Boys.	155
Natal Farm	156
Natal Orchard—"Weeding"	157
Natal Orchard—"Pruning"	157
Mooi River	158
Mooi River Station	159
Umgeni River	160
"Outspanned"	161
Mooi River Field Hospital	162
Panorama of Brynbella and Beacon Hill	163
Corridor Train near Estcourt	164
Bushman's River at Estcourt	164
Bushman's River Bridge, Estcourt	165
Estcourt	165—166
Weenen Light Railway	167
Umkolumba	168
Ostrich Farm at Weenen	168
Frere Bridge	170
Site of Armoured Train Disaster, Frere.	170
Chieveley	171
Colenso and River Tugela from Hlangwane Hill	172
Tugela River at Colenso	172
Where Lieut. Roberts fell at Colenso	173
Railway Bridge, Colenso, 1899	174
Colenso Front	174
Boer Bridge over the Tugela, 1899	175
Road Bridge, Colenso, 1899	176
Harts Hill	176
Main Line of Railway, Harts Hill	177
Vaal Krantz	178
Nameless Graves at Colenso	178
Tugela Falls near Colenso	179
Monte Cristo Range and Tugela River	180
Irish Brigade Monument	181
Graves, Railway Hill, near Pieters	181
Monument to Royal Dublin Fusiliers	181
Gun Hill and Lombards Kop	182
River Tugela near Colenso	183
Aasvogel's Kloof near Pieters	183
Nature's Staircase	184
Ladysmith from Convent Hill	186
Town Hall, Ladysmith	187
Murchison Street, Ladysmith	187
Ladysmith from Cæsar's Camp	188
Surprise Hill and Nicholson's Nek	189
Wagon Hill, Ladysmith	189
Where the Devons charged at Wagon Hill	190
Klip River, Ladysmith	191
Where Col. Dick-Cunyngham fell	191
Views of Spion Kop	192
All Saints' Church, Ladysmith	193
Ladysmith Town Cemetery	194
Railway Station, Ladysmith	195
All Saints' Church (Interior)	195
Biggarsberg Front	196
Coal Mine	197
Glencoe Junction	198
Graves alongside Railway Line	198
Newcastle	199
Town Hall, Newcastle	200
Drakensberg Front	201
Horse Shoe Curve, Ingogo	202
Majuba	202
Military Cemetery at Mount Prospect	203
Lang's Nek Tunnel	204
Volksrust Railway Station	206
Volksrust	206
Standerton	208
Heidelberg	208
Germiston Railway Station	210
Transvaal Gold Mine	211
Victoria Lake	212
Country Club, Johannesburg	212
Park Station, Johannesburg	213
Headquarters Offices, South African Railways, Johannesburg	213
Pritchard Street, Johannesburg	214
Market Square, Johannesburg	216
Johannesburg	217
Union Buildings, Pretoria	219
Government Buildings, Pretoria	219
Supreme Court, Pretoria	220
Hove's Drift, Pretoria	221
Premier Diamond Mine	222
Zoological Gardens, Pretoria	223
Proposed Museum, Pretoria	224
Post Office, Pretoria	225
Town Hall, Pretoria	225

LIST OF ILLUSTRATIONS—*continued*

	PAGE
Government House, Pretoria	226
Places of Worship in Pretoria	227
Komati Bridge and River	228
Reversing Station, Harrismith Branch	230
The Curve, Van Reenen	231
'Ngaba-Kwa-Zulu, Van Reenen	232
Harrismith	233
Bethlehem	235
Cross Street, Kroonstad	236
Valsch River, Kroonstad	236
Kloofs near Bethlehem	237
Modderpoort	239
Market Square, Bloemfontein	240
Raadzaal, Bloemfontein	241
Town Hall, Kroonstad	241
"The Devil's Chimney"	242
Boat Race, Amanzimtoti	245
Amanzimtoti Lagoon	246
On the South Coast Branch Line	247
Illovo River	248
Umkomaas Bridge	248
Umkomaas River	248
Railway Line at Widenham	250
Green Point Lighthouse	251
Sugar Mill, Esperanza	253
Cane Fields, Umzinto	253
Anglican Church, Umzinto	253
South Coast Line near Port Shepstone	255
Port Shepstone	256
Umzimkulu River Bridge	257
Marble Quarry	259
Umzimkulu River	260
"The Silent Channel"	262
Umgeni Bridge	265
Cutting Sugar Cane	267
Mount Edgecombe Sugar Mill	267
Tobacco and Cigar Factory	269
Packing Cigars	269
Indian Fruit Sellers	271
Kearsney Light Railway	274
Kearsney Tea Estates	276
Bridge over Tugela	278
Lower Tugela Rapids	278
Hotel at Somkele	281
Zululand	283
Eshowe	286
Native Women	287
Tugela River in Zululand	288
Nels Rust	290
Richmond	291
Anglican Church, Richmond	292
Edendale Falls	293
Upper Falls, Edendale Valley	294
Umsindusi River at Henley	295
Umkomaas Valley	296
Bulwer	297
Waterfall at Bulwer	298
Stuartstown Narrow Gauge Railway	300—301
Greytown Branch Line	303
Umgeni Falls, Albert	304
Railway Station, New Hanover	305
Railway Station, Greytown	306
Greytown	307
Wattle Bark Industry (Stripping)	309
Foot-hills of the Drakensberg	310
Dairy Stock	310
Dundee	312
Isandhlwana	313
Vryheid	317
"The lowing herd winds slowly o'er the lea"	319
The Krantz	320
Map of Roads to the Drakensberg	322
General View of Mont aux Sources	324
Mont aux Sources—North-East Tower	325
Mont aux Sources—South-West Tower	326
On the road to the Berg	328
Under Canvas	329
Ox Sledge	329
Mont aux Sources—Source of the Tugela	330
"The Spires," Mont aux Sources"	332
The Southern Gorge	333
The Tugela	334
Down the Koodoo Pass	334
Exit of Tugela River through Tunnel, Mont aux Sources	335
Entrance of Tugela River through Tunnel, Mont aux Sources	335
The Main Gorge, Mont aux Sources	336
Panorama of Cathkin Peak	338
Cathkin Peak	339
Massive Buttresses	340
Source of the Little Tugela	340
Gourton Road	341
Panorama of Government Reserve	343
Bushmen's Drawings	344
Government Game Reserve—"Giant's Castle"	345
Grave of Three Natal Carbineers	346
Bushman's River Pass	346
Mont aux Sources	348
Summit of the Berg	350
Section of Strata from "Giant's Castle" to the Coast near Verulam	352—353
Native Rock Shelter	354
Foothills of the Berg	355
Valley of Bushman's River	355
Top of the Little Berg	355
Bushmen's Drawings	357
"The mountains rent in twain"	358
"Tidlers' Stretch," Mooi River	360
Trout Fishing in Natal	361
Mooi River—The Upper Reaches	362
"Giant's Pool," Mooi River	363
Umgeni River	364
Trout Fishing in Natal	366
Trout Fishing in the Mooi River	368
The Gorge	369
The Home of the Trout	372
On the banks of the Tugela	374
Royal Agricultural Society's Show, Pietermaritzburg	377
A Natal Farm in the Midlands	378
Haymaking	379
A Tea Plantation on the Coast	380
Inverugie Tea Estate	381
A Sugar Mill at Port Shepstone	383
Views at a Sugar Mill	384
Interior of a Sugar Mill	385
View of a Tobacco Plantation	386
A glimpse of a Natal Wattle Plantation	387
Wattle Bark Industry	388
In a Wattle Plantation	389
The Last Stage in a Wattle Plantation	389
Loading up Wattle Bark for Exportation	390
Wattle Poles for Mine Props	390

LIST OF ILLUSTRATIONS,—*continued*

	PAGE
Steam Ploughing	391
Disc Plough at work	392
Cleaning root crops	392
Harvesting Maize	392
Stacking Maize Stalks in the field	392
Variation in Types of Maize	393
Variation in form of Ears of Maize	394
Steam Cultivation	395
Exporting Maize	396
Mine Props on the way to Railway Station	397
Loading-up Mine props at a Railway Siding	398
Harvesting Potatoes	399
A Natal Homestead	400
Shelling Maize by Machinery	400
A View of a Dairy Farm	401
On a Stock Farm in the Midlands	402
Making Butter	403
Loading Fruit for Market	404
Watering Time	405
On a Natal Dairy Farm	406
Horses on a Stock Farm in the Midlands	406
Type of a General Purpose Horse	407
Scene on a Natal Pig Farm	408
"Folded"	409
On a Natal Ostrich Farm	410
An Ostrich and its Eggs	411
An Ostrich Nest	411
A Flock of Turkeys	411
Fruit Farms	413
"Golden" and "Cayenne" Pineapples	414
Pineapple Plantation	415
Orchard in Town Bush Valley	416
Oranges for Export	417
Pawpaws (Male and Female)	418
Kaffir Pears	419
Apples from Centocow	420
Bunch of Grapes	421
Fumigating House	422
Irrigation	422
Umpanga	423
Nursery	425
Students sorting Wool	425
Lucerne Field	427
Breaking the Soil	428
Making Fruit Boxes	431
Wattle Farm	433
Vegetable Exhibit	433
Water Lily (Nymphæa)	434
Natal Colliery	436
Winding Engine	438
Coal in transit to Coast	439
Coal Sidings	440
Coaling Appliances	440
Coal in Transit	441
Coaling a Liner	443
Coking Plant	444
Diagram shewing the Annual Output of Coal, Natal	445
Collection of Zulu-made articles	446
A Noble Setting	448
Exterior and Interior of Hut	450
Warriors in Uniform	451
Kraal Life	452
Chameleon	453
Native Doctor operating	454
Female Diviner and Assistant	454
Nature's Mirror	455
Rain-Doctor keeping off lightning	456
Vanity in the Kraal	457
Classic	457
Drawers of Water	458
Nature's Cradle	458
The Laundry	459
Milking	460
Preparing for a Wedding	461
A Musician	462
Native Musical Instruments	463
A Little Warrior	464
Indians landing in Durban	465
Indian Women	466
Fruit and Vegetable Dealers	467
Indian Temple, Durban	468
Indian Fishermen	469
Mosque, Durban	469
Indian Barracks	470
Indians at work on Railway	470
Muharram Festival	470
Pietermaritzburg College	472
University College, Pietermaritzburg	473
Preparing for First School Visit	474
Samango Monkey	477
Serval Cats	478
The Cape Hunting Dog	479
Aard Wolf	480
Head of Black Rhinoceros	481
Common Hyrax, or Rock Rabbit, and Tree Dassie	482
The Cape Buffalo	483
List of Horns	485—486
Inyala—male and female	487
The Eland	489
Bush Pig, or Bosch Vark	490
Aard Vark, or Ant Pig	493
Peter's Fin-Foot	494
The Kori Bustard	495
Crowned African Crane	495
Group of Hammer Heads	496
The African Darter	497
The South African Griffin Vulture and the Black Vulture	498
Southern Lammergeyer, or Bearded Vulture	498
The Black-breasted Harrier Eagle	499
The South African Ground Hornbill	500
South African Coly	501
White-crested Plantain Eater	502
Natal Cadets	504
Militia Headquarters, Durban	508
Rifle Practice at the Butts	510
Return of Volunteers after quelling Native Rebellion	510
Native Police Headquarters, Pietermaritzburg	512
Natal Mounted Police Headquarters, left wing	513
"At Stables"	514
The Square	517
Presentation of Long-Service Medals to Natal Mounted Police	518
First Natal Ministry	520
Last Natal Ministry	521
The Hon. C. J. Smythe, Administrator of Natal	523
Reinforced Concrete Bridge	526

LIST OF ILLUSTRATIONS—*continued*

	PAGE
Pietermaritzburg-Durban Road	526
Ingogo Bridge	527—528
Concrete Bridge near Pinetown	528
Vants Drift-Buffalo Bridge	528
Road Transport	529
Interiors of Dining Saloon and Famliy Compartment	530
Main Line near Drummond	530
Botha's Hill Cutting.	530
First Railway Station in Africa	532
Construction Train	533
Strengthening Main Line Bridges	533
Concrete Base Building	533
Excavating	533
Screw Piles	534
Pneumatic Rivetting	534
Umzimkulu River Bridge	534
Engine Running Shed	535
Signal Cabin—Pietermaritzburg North	535
Railway Workshops, Durban	537
Engines	540
Garriages and Wagons	541
Wagons, and Narrow Gauge Stock	542
Railway Employees' Residences	543
Railway Institute	543
Branch Lines Bridge	543
Interior of Signal Cabin	543
Mail Train	544
Country Post Office	544
Interior of Travelling Post Office Van	544
Post Cart	544
Post Bag on Pole	544
Group of Natal Pioneers	552
Umhlatuzan River	553
Aloes	555
A Day's Sport	557
Diagram : Average Monthly Rainfall	558
Diagram : Rainfall in Inches	560
Union-Castle Mail Steamship Co.	566
R.M.S. "Briton"	567
Messrs. Thos. Cook and Son's Head Office, Capetown	570

MAPS AND PLANS

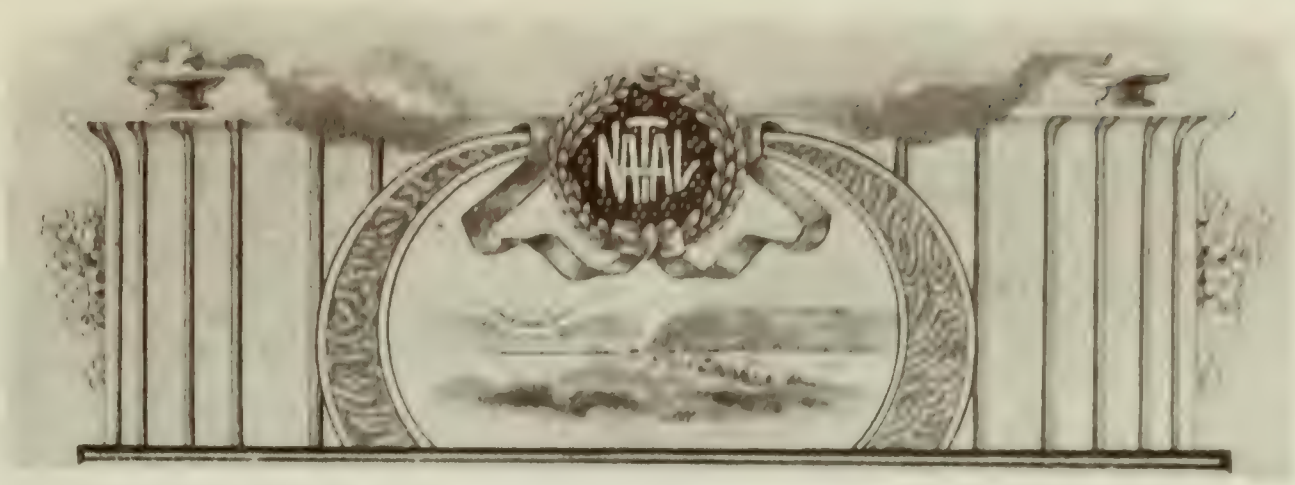
Projection Plan of Harbour, Port Natal	at page 37
Street Plan of Durban	" 55
Street Plan of Pietermaritzburg	" 145
British and Boer positions during siege of Ladysmith	" 185
Map of Fishing Districts, Natal	" 359
Map of Natal shewing Railway Lines, Stations and Connections, Counties, Productions, Settlements, etc.	" 551
Bird's-eye Map of War District	(See Pocket Back Cover.)

Time Map of Natal

	A.D	
	1450	
	—60	Turks take Constantinople, 1453
	—70	
	—80	
		Diaz rounds the Cape, 1486
	—90	
Columbus discovers America, 1492		Moors beaten in Spain, 1492 Vasco da Gama reaches India, 1497
Zulu lived about this time	1500	
	—50	
	—60	
	—70	
	—80	
		Spanish Armada beaten, 1588
	—90	
	1600	
		Dutch East India Company, 1602
	—10	
	—20	British flag at the Cape, 1620.
	—30	
	—40	
	—50	Dutch sea fights with English, 1650 Dutch settle at the Cape, 1652
	—60	
	—70	
		Simon van der Stell, 1677.
	—80	
Natal brought to notice of Cape Government, 1684.		Stavenisse wrecked, 1686. Huguenots come to Cape, 1688.
	—90	Durban Bay bought by Dutch, 1690.
	1700	
	—50	
		India becomes British, 1757.
	—60	
	—70	
		Orange River found, 1778.
	—80	
		Cape Colony reaches Fish River, 1788.
	—90	
		Cape taken by British, 1795.
	1800	
		Cape given back to Dutch, 1803.
Chaka joins Dingiswayo, 1805.		
	—10	
Dingiswayo dies, 1818. Chaka lays waste Natal.	—20	
		Farewell comes to Natal, 1824.
Chaka killed. Dingaan king, 1828.		
	—30	
		The Great Trek, 1837.
Dingaan's Day, 1838.		Republic of Natalia, Pietermaritzburg, 1839.
Panda king.	—40	
		District of Natal becomes British, 1843.
Sir H. Smith appointed Governor, 1847.		Natal annexed to Cape, 1844. Exodus of Dutch farmers from Natal, 1846 and 1847. Founding of New Germany near Pinetown, 1848.
	—50	
		South African Republic set up, 1852.
		Orange Free State set up, 1854.
Cetshwayo wins Tugela Battle, 1856.		Natal a Colony, 1856.
	—60	Indian immigration commenced.
		Railway line opened between Point and Durban, 1860.
		Kimberley diamonds, 1867.
	—70	
Cetshwayo crowned, 1872.		
Langalibalele, 1873.		Railway begun up-country, 1876.
		Transvaal proclaimed as British Territory, 1877.
		Sekukuni, and Zulu War, 1879.
Main Line of Railway opened to Pietermaritzburg.	—80	First Boer War, 1880-1881.
Independence of New Republic recognised by Great Britain, 1886.		Gold found in Transvaal, 1884-1886.
		Zululand declared British Territory, 1887.
	—90	
Line opened to Charlestown, 1891.		
		Representative Government in Natal, 1893.
Charlestown Line extended to Johannesburg, 1895.		Zululand annexed to Natal, 1897.
	1900	Second Boer War, 1899-1902.
Prince and Princess of Wales visited South Africa, 1901.		
		Rt. Hon. Joseph Chamberlain visited South Africa, 1902.
Natal Native Rebellion, 1906. National Convention, 1908.		
	—10	Unification of South African Colonies.



"The Silver Lining"



The Early History of Natal

CHAPTER I

The Early Days



WHEN Natal was first seen and named by Vasco da Gama the course from Europe to India by sea was still unknown. The discovery of that course had been the object of several voyages along the Western coast of Africa, undertaken at an earlier date by direction of the Portuguese Government. From these the navigators had returned without success, and (distrusting the reports then current in Lisbon derived from Arab seamen) without any confidence that the African continent did not extend southwards to the pole. Diaz, indeed, had gone beyond the Cape of Good Hope as far as the Great Fish River in Kaffraria; but he was unconscious of the fact that the ocean in an easterly direction now lay unobstructed before him, and he steered back to Portugal in 1487 without attaining the great purpose of the expedition. Ten years later, 1497, Vasco, doubling the Cape, felt his way along the land to the east and north-east. On Christmas day he passed near the shores of the country which, in honour of the Nativity, he called the "Land of Natal," but he did not enter the harbour, or touch at any point on the coast. Proceeding onward, he reached Melinda, between which port and Southern India trading vessels had for many centuries crossed the sea. A less circuitous route to India soon suggested itself. This having once been found, there was little inducement to steer far along the African coast after passing Cape Point; and for nearly two centuries Natal was rarely—and only accidently—visited by mariners.

The Dutch East India Company

It was not until the Dutch East India Company had occupied the Cape that any copious and very reliable accounts of Natal are on record. It would seem that it was first brought to the notice of the Cape Government in 1684 by the captain of an English ship wrecked on the east coast, in latitude 29 S.; and in a very old work on the Cape of Good Hope, mention is made of two shipwrecked men, who alone out of a much greater number, were able to make their way overland from Natal to Cape Town in 1685. Of any particulars regarding the country, at that time obtained, the official papers contain no information.

In 1686, a Dutch vessel was wrecked sixty miles South of Port Natal, and the crew, about sixty in number were, after various adventures and with the assistance of the Cape Government, nearly all found and brought away.

From all the seamen a description of what they had seen and done was demanded, and, under their solemn declarations that they would speak the truth, was taken down in writing. It is evident that native customs have since varied but little. The population was numerous, rich in cattle, and disposed to be peaceful among themselves; for those against whom, as being hostile or cruel, they warned the white strangers, must have been Hottentots and Bushmen. It is interesting to notice that the larger tribes occupying Natal and the territory in the direction of Kaffraria were in the same localities and had the same names by which they are now distinguished.

The knowledge gained of the territory made the authorities at the Cape desirous of acquiring, as an addition to their possessions in Africa, the harbour of Natal and some of the surrounding country, and on 24th May, 1690, Commander van der Stell reported to the Chamber of XVII., that the purchase of the port and its environs had been effected. But neither the Commander nor his successors made any serious endeavour to establish a port or a trading depôt in the newly acquired territory.

In various histories it is stated that Natal was occupied by the Dutch from 1721 to 1729, but this statement is incorrect. In 1719 the Dutch authorities at the Cape had directed that if trade could be properly carried on at Natal a station, with a few officers, should be established.

Deterred probably by the difficulty of entering the Port of Natal, and attracted by the superiority of De la Goa Bay as a harbour, it was at the latter place that commerce was attempted—and at first not without some success; but the sickliness of the climate and the great mortality among the adventurers so discouraged the Dutch that the enterprise was abandoned, and never again undertaken. There is nothing to show that Natal was visited by a ship of any nation during the period of the occupation of De la Goa Bay by the Dutch.



Group of Pietermaritzburg Colonists of the 'Forties

Taken in 1908 at Mr. Pistorius' House—built in 1840

Reading from left to right: Geo. Curry, D. P. Boshoff, — Ponnewitz, J. T. Gatridge, H. C. Shepstone, [illegible], C. W. [illegible], [illegible] Shepstone

Early English Settlers

Soon after the year 1820, two or three of the English then settled on the Eastern Frontier were attracted towards Natal, chiefly by the love of adventure. Their accounts of the country, and especially of the abundance of ivory procurable here, excited a spirit of enterprise among a few at the Cape, who became in very deed the pioneers of colonization in this country. Of this number were Lieutenant Farewell, Lieutenant King, Mr. Isaacs, Mr. Henry Fynn and others, who—though they regarded the neighbourhood of the bay as the place of their habitation, spent most of their time in elephant hunting, or in trading for ivory—were thus in constant intercourse with the natives, and had frequent access to Chaka, the Zulu king.

Military instinct, a master mind, personal daring, and the absence of every trace of mercy, were united in Chaka, and there followed countless scenes of aggression, devastation, and the massacre of the greater number of every vanquished tribe, no choice being left to the remnant but flight to distant fastnesses in which concealment made it possible to save life, though only to exist in misery. As the result of such violence, very many of the natives never ventured to resist, but regarded it as most fortunate if they were permitted to bow under the yoke, and own no ruler but Chaka. The Zulu tribe grew into a nation within the limits of Zululand ; but to all, except the herdsmen of the royal cattle, it was forbidden to dwell in any part of the country between the Tugela and the Umzimvubu.

This depopulation of Natal was destined to become, a few years later, a direct cause of its being sought as a settlement by the African Dutch and by British colonists ; the remnants of the aboriginal inhabitants did not return to it, until their land had passed into the possession of the white race.

The action of the English Government in regard to the emancipation of slaves, and also with regard to the Native tribes on the borders of Cape Colony, was a primary cause of the great exodus from the Cape Colony, in 1837, of African Dutch Boers, the larger number of whom came to Natal.



Brig "Salisbury" crossing the Bar, 1824 with Lieutenant Farewell on board

In 1837 the emigrants were joined by one who, from the high estimation in which he was held, was received and acknowledged as their leader and chief. This was Mr. Pieter Retief, a descendant of one of the Huguenot families, who was born and brought up in the division of the Paarl, near to Cape Town, but had moved thence to the eastern frontier, where he had been a resident for nearly twenty years. He organised amongst them a simple

form of Government, based upon the old regulations in force under the Batavian Republic in the colony. They then pursued their course towards Natal, and upon their arrival Retief, with a picked body of men (about 70 Dutch and 30 Hottentots), went on to the headquarters of the Zulu king, Dingaan, at Umgundhlovu, beyond the Tugela, to negotiate for a cession of a portion of the territory which was lying unoccupied. Dingaan received them with apparent kindness, and agreed to grant their request on condition of their regaining some cattle which a chief living on the Drakensberg had carried off from him. This service was performed, the cattle were restored, and Dingaan signed a formal deed of cession of all the Natal territory, which was witnessed by three of his counsellors and three of the emigrants.

The next morning, as Retief and his party were preparing to leave, Dingaan induced them to come unarmed into the enclosure around his kraal. While there, witnessing a Zulu sham fight, and partaking of the native beer presented to them by the king, they were all treacherously seized, and savagely put to death.

Immediately after the massacre, Dingaan sent out his forces to destroy the encampments of the emigrants who, unconscious of danger, were scattered over the upland country at the base of the Drakensberg. The Zulus surprised before daybreak those of the Dutch who were near the Blaauwkrantz and Bushman's River and indiscriminately butchered and mutilated men, women and children, five hundred souls in all. A few escaped, carrying the news to the neighbouring parties, who hastily improvised defences, forming their wagons into laager. The women assisted the men who, with the aid of their fire-arms, heroically succeeded in keeping in check the masses of savages who assailed them, and finally drove them off.

DINGAAN'S DAY

The survivors, after this dreadful catastrophe, made the best arrangements they could for united defence, resolving to avenge themselves for the innocent blood which had been shed. The English residents at the Port of Natal espoused their cause. Both forces took the field against Dingaan, but unsuccessfully—the prestige of victory being with the Zulus. Soon afterwards, however, reinforcements reached the settlers by the arrival of fresh parties of emigrants among whom was Mr. Andries Pretorius, a farmer from the district of Graaff-Reinet, who was elected their leader and chief commandant in the place of the ill-fated Retief. At the close of 1838, they found themselves strong enough to resume the offensive; and advancing across the Tugela once more, they gave battle to Dingaan and his army of about 10,000 warriors on Sunday the 16th December, still remembered as "Dingaan's Day."

The Boer force counted little over 400 well armed fighting men entrenched in laager. The Zulus repeatedly attempted to rush the defences, but were

beaten off with great loss, and finally routed by 200 mounted men who sallied out from the laager and charged both flanks of the enemy. This decisive victory, in which about 3,000 Zulus were killed, was subsequently followed by another expedition against Dingaan, in which his brother Mpande took the chief part in alliance with the emigrants, and eventually the Zulu king became a fugutive in Swaziland, where shortly afterwards he was killed.



Death of John Cane and Robert Biggar at the Battle of the Tugela, 1838

The emigrants being now the acknowledged masters of the country, set up Mpande as chief of the Zulus east of the Tugela, and occupied themselves with forming their own settlement in the remainder of the territory. Having regained confidence, they were able to give due attention to the settlement of the country and to the regulation of public affairs. Pietermaritzburg was laid out in 1839, and here the Volksraad of 24 members met quarterly.

Dutch Republic of Natalia

The Cape Government, fearing that any disturbance in Natal might re-act injuriously on their eastern frontier, sent a small force in December, 1838, to occupy the Port of Natal and its neighbourhood. It was almost avowedly a corps of observation only, and was withdrawn at the end of 1839, whereupon the Boers proclaimed the Republic of Natalia.

A period of tranquility ensued, occupation and tillage of the soil being undertaken somewhat actively. The Volksraad wrote to the Governor of the Cape expressing the desire of the emigrants that their independence should be recognised, assuring him of their peaceful views with regard to the native races. But, in the feeling of their security and conscious of their strength, they determined to seek redress for real or imaginary wrongs from Ncapayi, a native chief of Southern Natal, and they also entered into negotiations with Faku. Ncapayi was defeated without any serious difficulty and reprisals were extracted from him for alleged depredations. The view that this aggression on Ncapayi had not been justified was urged on the authorities at Grahamstown

on the part of Faku, and was also brought to notice by the resident missionaries. The knowledge of the fact that the emigrants had been engaged in hostilities and negotiations at no great distance from Kaffraria again aroused suspicion and uneasiness at the Cape, and it was determined to re-occupy Natal.

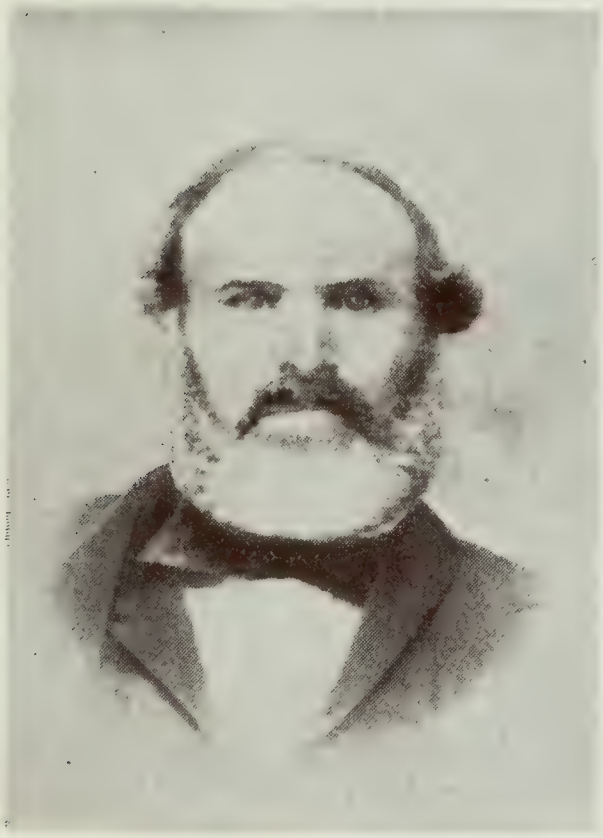
On the 14th January, 1841, the Volksraad had once more claimed from Governor Napier recognition of independence. This having been refused by the Home Government, the President—upon refusal being communicated to him—informed the Governor (11th October, 1841) that the emigrants were firmly resolved not to renounce their independence, and would not admit a British force into the country. It is probable that in this bold defiance they were influenced by a hope that Holland would intervene in their favour. Designing men interested in trade between that country and Natal had assured them that sympathy in their cause was universal among the Dutch. The emigrant Boers knew, from their publication at the Cape, the proceedings of the Legislative Council there, and the views entertained as to Natal, and in February, 1842, the President and Volksraad addressed to Sir G. Napier a statement in great detail of their reasons for leaving the parent colony, of their misfortunes and sufferings, and of their resolution not to be again under the yoke of Great Britain.

Notwithstanding their expressed determination not to yield, the Boers took no active measures to check the advance of the small force of 237 men which the Cape Government—fearing the risk of disturbance on its eastern frontier—sent overland to resume possession of Port Natal. The British force reached the site of the town of Durban early in May, 1842.



Old Military Cemetery, Durban.

A deputation of Boers met the commanding officer (Captain Smith) at the Umbilo, a few miles from Durban, and placed in his hands a protest against any occupation by the British Government, but no show of resistance was made. Captain Smith encamped his men at Durban and fortified his position. The Boers mustered in considerable force at the Congella ; they began to annoy and insult the troops, driving off the cattle that had been used for draught on the march, and on the 23rd May, Commandant Pretorius enjoined Captain Smith by letter to break up his camp and quit the territory. Actual hostilities soon began ; Captain Smith, in command of the small force, marched on the emigrant camp, but was repulsed by Pretorius's force and obliged to retreat with the loss of several men and two guns. He and his men were then closely besieged in their camp for two months, almost without supplies. One of the early settlers, Richard King, who was farming at Isipingo, undertook to carry the news of their position overland to Cape Colony. Starting under cover of night, he crossed over to the Bluff with a couple of horses, and rode all the way through Kaffirland to Grahamstown, a distance of 600 miles, effecting the journey in ten days. Reinforcements of troops, under the command of Lieut.-Colonel Cloete, were at once despatched by Her Majesty's ships to Port Natal, where they relieved Captain Smith's detachment, and dispersed the emigrant force which attempted to oppose their landing. The leaders of the emigrants, seeing that further opposition was unavailing, soon gave way, signed a treaty of submission, and a general amnesty was granted.



Dick King.

The submission of the Boers was far from being absolute, and within the next twelve months a spirit of disaffection, almost exciting on some occasions to renewed defiance and resistance, animated many of the Boers. The tendency to insubordination was kept alive by the delay of the Home Government in deciding on the relation in which the country was to stand either to the Cape Colony or the Empire, and on the form of Government to be adopted ; and, when these points had been decided, by the still longer delay in appointing the officers required to control the population, and for the conduct of public business. Captain Smith remained in command of the troops quartered in the neighbourhood of the harbour, and quite secluded from the interior of the country. He was entrusted with an ill-defined power of forbidding acts to which the British Government were known, or were supposed by him, to be averse, but he was wholly without machinery for governing. The Volksraad were allowed to regulate the civil, the judicial, and generally, the internal affairs of their countrymen. The

Commandant kept a watchful eye on the occurrences of the period, and took care to obtain and transmit all necessary information to the Governor at Cape Town.

At this time thousands of the Zulu tribe came pouring in across the border, at the Tugela River, to escape the tyranny and cruelty of their chief Panda. Their overwhelming numbers, amounting to nearly 100,000, created a feeling of general insecurity ; and the occupants of farms abandoned their isolated positions, declaring that all the evils of the Cape Kaffirland were being reproduced around them. The Volksraad passed a resolution requiring the Zulus to move beyond the northern and southern frontier within fourteen days after receiving notice to do so ; and they asked the military commandant to co-operate in putting the order in force. To this measure, however, Major Smith objected. His instructions were to prevent any violent proceedings on the part of the farmers towards the natives, and he urged the Volksraad to wait patiently until the plans for the future management of the settlement were made. The first step towards a termination of this confused and unprogressive condition of affairs was the appointment of Mr. Henry Cloete as Her Majesty's Commissioner in Natal. He was sent to explain to the emigrants the intentions of the Crown as to the future tenure of the country, and the terms to be conceded them in regard to land grants, and to civil and other institutions ; military protection being guaranteed by Great Britain. For some months before his arrival disaffected Boers had been intriguing with their fellows beyond the Drakensberg urging them to come to their assistance. Mr. Cloete landed on the 5th June, 1843. The Volksraad did not hear or consider his message until the 7th August, and the Commissioner states that at that time there were, within the precincts of Pietermaritzburg, no less than six or seven hundred armed men who had recently come over the mountains. The excitement was great, but the Volksraad firmly withstood the pressure brought to bear upon them. Prudent counsels prevailed and the abettors of strife withdrew beyond the limits of Natal. The terms of the proclamation of the 12th May, 1843, were accepted ; and the Commissioner proceeded with the task of defining, classifying and registering land-claims, inspecting the interior of the district, and visiting Zululand—where a treaty of peace and friendship was made with Mpande, by which British territory was limited in the north-east by the Tugela and Umzinyati or Buffalo River. He also obtained cession of St. Lucia Bay to Great Britain, thus preventing any foreign power from obtaining a harbour near Natal. With these objects his stay was protracted to April of the year 1844. His presence had been a pledge to the inhabitants that something was being done in their interests.

Natal Territory annexed to the Cape

By letters patent, bearing date the 31st May, 1844, Her Majesty the Queen annexed the district of Natal to the settlement of the Cape of Good Hope. It was not, however, until the end of the year 1845 that a regular Government was organised.

In December, 1845, Sir Peregrine Maitland, Governor of the Cape, appointed Mr. Martin West to be the first Lieutenant-Governor of Natal. Mr. West landed at Port Natal on the 4th of that month and assumed duty in Pietermaritzburg on the 15th. He was assisted by an Executive Council of five, viz :— Colonel Boys, Commandant ; Mr Donald Moodie, Secretary to Government ; Dr. W. Stanger, Surveyor-General ; Mr. W. Field, Collector of Customs and Mr. W. Harding, Crown Prosecutor. Mr. H. Cloete was appointed as Recorder or Judge and Mr. Theophilus Shepstone as Diplomatic Agent to the Natives then estimated to number 80,000.



Longmarket Street, Pietermaritzburg, 40 years ago.

The Lieutenant-Governor was subordinate to the Governor of the Cape, and the Legislative Council of the latter colony continued to frame laws for Natal until 1848 when a separate Legislative Council was established for Natal consisting of the Lieutenant-Governor, Colonial Secretary, Surveyor-General and Crown Prosecutor. It was decided by Her Majesty's Government that the natives should be governed according to their own laws and customs.

Exodus of Dutch Farmers

One of the first acts of Lieutenant-Governor West was to settle the land grants according to his instructions, but it was impossible to concede as much as they asked to the Boers who accordingly became dissatisfied, many of them leaving the colony. This exodus of the farmers continued during the years 1846 and 1847, some going over the Berg to their friends in the Orange River Sovereignty.

Sir Harry Smith, the new Governor of the Cape, who assumed office at the end of 1847, lost no time in visiting the emigrant farmers and native chiefs in the Sovereignty, and he then crossed the Berg into Natal. At the Tugela drift he met Pretorius with his followers moving away with his herds

and flocks to cross the Vaal River. On hearing their grievances, he invited them to come to Natal and promised them title to good and extensive farms without delay, but the emigrants resolved to continue their trek and seek independence and homes outside the boundaries of Natal. Natal was thus left with but a small white population, and various schemes for the introduction of settlers were started. In 1848, thirty-five families were brought out from Bremen, and founded New Germany, near Pinetown. Under Byrne's and similar immigration schemes some 4,500 British settlers were brought to Natal during the years 1848-1851.

Various religious societies were represented at this time in the colony, the Dutch Reformed Church, American Board of Missions and Wesleyan Society being the first to take the field, and from 1850 to 1856 churches were opened in both Pietermaritzburg and Durban in connection with the Roman Catholic, Presbyterian, and Congregational denominations. In 1851 the foundation stone of St. Peter's Cathedral was laid in Pietermaritzburg, and in 1853 Natal was created a Bishop's See by Her Majesty's Letters Patent, Dr. J. W. Colenso being consecrated as the first Bishop.

Natal's Royal Charter

In 1856 Natal was, by Royal Charter on the 15th July of that year, created a separate colony, to be called the Colony of Natal. Mr. (afterwards Sir) John Scott was appointed to be its Lieutenant-Governor, and assumed the Government on the 5th November, 1856, on which day also the Royal Charter was promulgated in the colony. The Governor was to be assisted by an Executive and a Legislative Council. The Colonial Secretary, Treasurer and Secretary for Native Affairs, were the first members of the Executive, the Chief Justice, Senior Officer commanding the Troops, and the Attorney-General being subsequently appointed as members.

The first Legislative Council under the new Charter met in Pietermaritzburg on the 23rd March, 1857, and Mr. Donald Moodie, member for the Borough of Durban, was elected the first Speaker. The Council then consisted of 16 members, viz., four non-elective and 12 elective, the non-elective members being the Colonial Secretary, Attorney-General, and Secretary for Native Affairs. The number of both elective and non-elective members varied from time to time.

The year in which Natal became a separate Colony witnessed serious trouble in Zululand. Mpande, who was then king of the Zulus, had loyally kept the treaty of peace and friendship which Mr. Commissioner Cloete made with him on behalf of the English Government. His eldest son, Cetshwayo, was a man of warlike tastes, and manifested much of the military ability of his uncle Chaka. Cetshwayo suspected his father of favouring the pretensions of his younger brother Umbulazi to the chieftainship, and gathered round him many of the young men of the tribe who looked to him as their future chief.



Legislative Council, 1863

W. Macfarlane (Speaker).

Major D. Erskine (Colonial Secretary). *J. R. Saunders.*

Michael H. Gallwey (Attorney-General). *John Ayliff (Colonial Treasurer).* *J. W. Archbell.*

Theophilus Shepstone (Secretary Native Affairs). *John Scott (Lieut.-Governor).* *J. W. Akerman.*

J. Millar. *J. C. Boshoff.*

G. H. Wathen. *John N. Boshoff.*

Rev. J. L. Crompton. *J. Robinson.* *J. Bergtheil.*

G. Mellersh.



The Legislative Assembly in the Last Parliament of Natal, 1910

[Photo by W. Watson Robertson

LEGISLATIVE LIBRARY ONTARIO



1.—The First Election in Natal, February, 1857.
2.—Old Legislative Council Building.—Opening of Council in 1868.

Umbulazi also had a party attached to him, and the two factions met on the banks of the Tugela in December, 1856, when a terrible massacre ensued, Cetshwayo being completely victorious. Umbulazi with five other sons of Mpande were killed in the battle in addition to some thousands of his unfortunate followers. In 1857 it was resolved that Mpande, who was unable to move about, should retire from the management of affairs, and that Cetshwayo should be the actual ruler.

The year 1860 was that in which Indians were first introduced into Natal as indentured labourers to work on the plantations. The growing industries of the coast lands such as sugar, coffee, cotton and arrowroot demanded a surer supply of labour than could be obtained among the natives of the colony. The importation of these labourers has continued since that year ; probably not more than half of them returned to their native land on completion of their indentures, the remainder settling in the colony as free Indians and being employed as market gardeners, servants, etc.



Group taken at Government House about 1865

Back row (from left to right): J. Ayliff, unknown, J. C. Boshoff, J. Millar. J. N. Boshoff, Col. Sir J. J. Bisset (Administrator) J. R. Saunders, T. Shepstone.

Middle row: J. Walter, D. Erskine (Col. Sec.), J. Robinson,

Front row: J. W. Akerman, Robert Mellersh.

The First Railway in South Africa

The line of railway opened from the Point to Durban in 1860 and afterwards continued to Umgeni was the first railway work in South Africa.

It was in this year that Prince Alfred (afterwards the Duke of Edinburgh) visited South Africa and, accompanied by Sir George Grey, made a tour overland from Capetown to Natal rejoining at Durban the frigate *Euryalus* on which he was then serving as a midshipman.

The first line of telegraph erected in the colony, viz., that between Durban and Pietermaritzburg, was completed in 1865.

The discovery, in 1867, of diamonds at the Vaal River marks an important era in the history of South Africa, as it brought much wealth to the country and was followed by a considerable influx of population. Many Natal colonists proceeded to the Diamond Fields and after doing well there returned to the colony with considerable fortunes.

On the death of King Mpande in 1872, the request was made by Cetshwayo and the Zulus that Mr. Shepstone should proceed to Zululand to instal Cetshwayo as head of the nation. Accordingly in August, 1873, Mr. Shepstone, accompanied by a body of mounted volunteers with two field pieces, proceeded to Zululand and the coronation cermony took place on the north side of the Umfolosi where a military marquee was erected for the occasion. About 10,000 Zulus armed with sticks and shields were ranged round the kraal, and before the coronation took place Mr. Shepstone proclaimed that with the assent of the King and people certain new laws had been made providing that:

(1) Indiscriminate shedding of blood was to cease.

(2) No Zulu should be condemned without open trial and the public examination of witnesses, and should have a right of appeal to the King.

(3) No Zulu's life should be taken without the sanction of the King even after such trial had taken place.

(4) For minor crimes a fine should be substituted for the punishment of death.

Upon the completion of the coronation ceremony, Cetshwayo, arrayed in the robes provided for the occasion, was presented to his brothers and head men as king of the Zulus. After exchanges of presents the expedition returned across the Tugela on the 11th September.

In consequence of the refusal of the Amahlubi tribe, who lived at the foot of the Drakensberg in Weenen County, to surrender guns which they had obtained at the Diamond Fields as wages, or had purchased with their savings, a force—consisting of 200 regulars, 300 volunteers, and about 6,000 natives with two field pieces—under the command of Major Durnford, R.E., entered their location. The chief, Langalibalele, with a small party of attendants, escaped into Basutoland at the Bushman's River Pass, the young men

of the tribe having orders to follow with the cattle. In an attempt, by a patrol party of Carbineers, to stop the progress of the natives, three of the volunteers and two of the loyal natives were killed in the pass afore mentioned. A strong party was sent to pursue the fugitive chief, and Langalibalele, with nine of his head men, was arrested in Basutoland and the tribe was broken up.

Transvaal Proclaimed British Territory

Owing to troubles in the Transvaal between the Dutch and the natives, the British Government, believing that the general peace of the colonies of South Africa was imperilled, sent Sir Theophilus Shepstone as a special Commissioner to confer with the Transvaal authorities and to watch the course of events. Sir Theophilus arrived in Pretoria in January, 1877, and, finding the Government of the country had no power either to control its own subjects nor to defend them against their native enemies, proclaimed the Transvaal as British territory, being of opinion that this was the only way to save the country. The annexation took place on the 12th April, 1877, no resistance being openly made to it. Sir T. Shepstone was appointed Administrator of the new colony, and held office until March, 1879, when he was succeeded by Sir Owen Lanyon. Great Britain thus became involved in the difficulties which existed between the Dutch and the Zulus regarding the large tract of land between the Buffalo and Pongola, occupied by the Boers as Transvaal territory, but which was claimed by Cetshwayo and known as the disputed territory. The Zulu king consented that the matter should be settled by arbitration. In the meantime the relations between the Zulu king and the British authorities became strained. Cetshwayo had fulfilled none of the promises made to Mr. Shepstone in 1873, and, when remonstrated with by the Governor of Natal, replied in insolent and defiant terms.

The Zulu War, 1879

In July, 1878, two women of the tribe of Sirayo, a chief living near Rorke's Drift, fled across the Buffalo River into Natal for protection. They were followed by an armed party headed by a brother and three sons of Sirayo and dragged out of the police hut where they had taken refuge. The women were taken to Zululand, and it is believed put to death.

Demand was made by Sir H. Bulwer that the chiefs who had violated British territory should be given up for trial, but without result. Sir Bartle Frere, who was then High Commissioner, came to the conclusion, after consultation with the Natal authorities, that the condition of Zululand was a menace to the peace of the country, and it was decided that when the award regarding the boundary was made known to the Zulu king and people, certain other demands necessary to the welfare of the Zulus and of their neighbours should be made upon them. An ultimatum was delivered together with the boundary award in November, 1878. The award of the Commissioners was



Zulu War Memorial
Pietermaritzburg

in favour of the Zulu claims, and gave Cetshwayo the sovereignty over the disputed territory, subject to the condition that white settlers who had acquired farms there after 1861 should retain them. Cetshwayo having failed to comply with the terms of the ultimatum in the prescribed time, Zululand was invaded. A British force, consisting of 6,650 Europeans and 8,200 Natives collected under Lord Chelmsford, columns being formed at Tugela mouth, Helpmakaar, and Utrecht. On the 22nd January the column at Isandhlwana under Colonel Durnford was surrounded by an overwhelmning force of Zulus and practically annihilated, 858 Europeans and 471 Natives being killed. On the same night 139 men, including 35 sick, successfully defended Rorke's Drift against 4,000 Zulus. After several severe engagements the Zulu power was destroyed at Ulundi on the 4th July, when 20,000 Zulus were defeated with heavy loss. Cetshwayo fled, but was captured not long after and deported to Cape Town. An incident of the war was the death of the young Prince Imperial of France, who had come out to Natal and joined Lord Chelmsford's staff as a volunteer. The reconnoitering party of which he was one was surprised by the Zulus on the 1st June, the Prince being killed. Zululand was then divided by Sir Garnet Wolseley, the High Commissioner, into 13 districts under 13 chiefs, a British Resident being stationed in the country as the adviser to the chiefs and as a channel of communication between them and the Government.

The First Boer War

Trouble in the Transvaal followed closely upon the Zulu war. In December, 1880, a majority of the Boers took up arms against the Government, and hoisted the flag of the South African Republic at Heidelberg. The towns held by Imperial troops were immediately invested, and a detachment of the 94th Regiment, which was being withdrawn from Lydenburg to Pretoria to strengthen the force at headquarters, was surprised at Bronkhorstspruit, and after suffering very heavy loss, compelled to surrender. The towns, however, held out, and Sir G. Pomeroy Colley, the Governor of Natal, without waiting for reinforcements, collected the small force at his disposal and advanced

from Pietermaritzburg to relieve them. A large force of Boers, determined to oppose his entry into the Transvaal, took possession of Lang's Nek, the pass by which he had to cross the Drakensberg Range.

On the 28th January the English troops made a gallant attempt to carry this pass by storm, but they were driven back with heavy loss. The Boers followed up this advantage by cutting off Sir George Colley's communications with Newcastle, with a view to prevent his receiving the reinforcements which had been sent out and were then on the way to join him. To re-open his communications he crossed the Ingogo River on the morning of the 8th February, and was immediately attacked by the Boers. The action continued all day; at nightfall the Boers drew off, and the English force returned to camp. On the night of the 26th February General Colley moved out with 350 men and took possession of the summit of the Majuba mountain, commanding the Boer camp at Lang's Nek. The Boers attacked the mountain next day, and carried it by storm, with but little loss, while only about one-fifth of the defenders escaped, the rest being killed, wounded, or taken prisoners, and Sir George Colley himself was killed.

The command now devolved on Sir E. Wood, who was at Pietermaritzburg organising the advance of the reinforcements, and, at the instance of President Brand, an interview took place on the 6th March between him and General Joubert, who was in command of the Boers at Lang's Nek, which resulted in the conclusion of an armistice. Negotiations followed, and a preliminary peace agreement was signed on the 21st March by Sir E. Wood and the representatives of the Boers. The terms of the agreement were that Her Majesty's Government should allow the Transvaal self-government as regards its own interior affairs; that the control and management of the foreign relations of the State should be reserved to Her Majesty as Suzerain; and that the Government of the Transvaal should recognise a British Resident. The functions of this officer, and the provisions for the protection of the interests of the native population, were to be determined by Her Majesty's Government on the recommendation of a Royal Commission.

Commissioners were appointed by both parties, and a Convention was signed on the 3rd August; on the 8th of that month the Government was handed over to the representatives of the Boers, the Convention being duly ratified by the Volksraad on the 25th of the following October. This Convention was subsequently modified by that of London, dated 27th February, 1884.

The main line of the Natal Government Railway was opened to Pietermaritzburg on the 1st December, 1880, and subsequent steps were taken for its extension northwards, the line being opened to Charlestown on 7th April, 1891. In the same year coal was first mined near Newcastle; an exhaustive report on the coal fields being prepared by Mr. F. W. North.

The arrangement made by Sir Garnet Wolseley in 1879 for the administration of Zululand had not resulted in peace, and Cetshwayo was re-installed



1.—The first building occupied as a Government House by Lt.-Governor Martin West in December, 1845

2.—The present Government House

in January, 1883, by Sir Theophilus Shepstone to rule over the country north of the Umhlatuzi River, except Sibhepu's district. Zululand south of the Umhlatuzi was constituted a Reserve. In the following year Cetshwayo was driven from his kingdom by Sibhepu, and died in the Reserve, the Usutu or Royal House acknowledging his son Dinuzulu as his successor.

Constant fighting between the Usutu and the Mandhlakazi under Sibhepu followed, and the Boers under Lucas Meyer, received, in consideration for helping the former, a grant of 3,000 square miles North-West Zululand which became the New Republic. The British flag was hoisted at St. Lucia Bay to prevent the establishment of a foreign port north of Natal.

In 1886 the independance of the New Republic was recognised by Great Britain and the territory subsequently merged in the Transvaal in which it became the Utrecht and Vryheid districts.

In the same year extensive discoveries of gold were made at Witwatersrand in the Transvaal, and Johannesburg then sprang into existance. The mines attracted a very large population and brought prosperity not only to the public but to Natal and the rest of South Africa.

Zululand declared British Territory

In 1887 Zululand was declared British territory and the Governor of Natal was appointed Governor of Zululand, the laws of Natal, as far as they were applicable, being extended to that province.

Dinuzulu did not however accept the annexation and, with some other chiefs, rose in rebellion the following year. He was arrested and with his two uncles was sentenced to ten years' imprisonment and banished to St. Helena. Zululand was annexed to Natal from the 27th December, 1897, and in the following month Dinuzulu and his uncles returned from St. Helena under conditions settled between the Imperial and Colonial Governments.

Natal Secures Independent Government

In 1890 a motion in favour of self-government was passed in the Legislative Council, and in 1892 Messrs. John Robinson and Geo. Sutton went to England to discuss with Her Majesty's Government details of self-government for Natal. The Constitution Act, 1893, passed by the Legislative Council on the 10th May, was proclaimed on the 4th July and became law on the 20th of the same month, the previous Letters Patent and Royal Instructions being revoked and new ones issued on the last named date.

Under the new Constitution, legislation was invested in an elected Legislative Assembly of 37 members, and a nominated Legislative Council of 11 members, the Government being carried on by six ministers chosen from the Council and Assembly, and responsible to Parliament.



1.—The Old Court House, on the site of the present Town Hall, erected about 1841 and used for the Volksraad under the Boer Government

2.—Parliament Buildings, 1910

The first elections under Responsible Government were held in September, 1893, the first session of the first Parliament being opened on the 19th October and prorogued a week later.

In 1894 a Convention was entered into with the South African Republic by which the railway was to be extended from Charlestown to Johannesburg, which point was reached on the 15th October, 1895.

The great influx of population to the Transvaal led to difficulties with



1.



2.

1.—The Colonial Office Buildings to-day

2.—The Old Colonial Office on the same site

The small building on the right was the first Post Office

the Government of the country. The immigrants, or Uitlanders as they were called, were of various nationalities, but chiefly British subjects; they formed almost the entire population of Johannesburg, and contributed largely to the public revenue. They were denied any share in the Government and they had many other grievances in respect to taxation, education, etc. Petitions to the Volksraad failed to redress the grievances, and in 1895 a Reform Association was formed to press for the rights of the Uitlanders, 4,000 men being armed in case of disturbance. Dr. Jameson, Administrator of Rhodesia, was appealed to for assistance, and left Mafeking with about 500 of his armed police and six maxim guns with the intention of marching to Johannesburg. A short distance from Johannesburg he was encountered by a Burgher force, defeated, and compelled to surrender. Twenty-six lives were lost in the fight, and Dr. Jameson, his officers and men were conveyed as prisoners to Pretoria, being thereafter sent to England to be tried by the British Government. The promoters of the Reform movement were arrested and imprisoned in Pretoria, the four leaders being sentenced to death, which sentence was however commuted to imprisonment, and finally to payment of a fine.

Second Boer War

The failure of the Transvaal Government to redress the grievances of the Uitlanders, and its disregard of certain provisions of the London Convention of 1884, were primary causes of the Boer War which broke out in October, 1899. The Orange Free State joined the Transvaal, and the Boers from both Republics, under General Joubert, invaded Natal on the 12th of that month. The Natal garrison had been raised to nearly 14,000 men by troops from India, and by calling out the whole of the Natal Volunteers (about 2,500 in number) and the formation of irregular corps. It is unnecessary to here trace the progress of the war; which, after lasting for nearly $2\frac{1}{2}$ years, and costing Great Britain about 25,000 lives and nearly £250,000,000 sterling, was ended by the peace of Pretoria on the 31st May, 1902, under which the Transvaal and Orange Free State became British territory, the Transvaal districts of Utrecht and Vryheid being incorporated in Natal.

In 1901 the Duke and Duchess of Cornwall and York visited South Africa; they landed at Durban on the 13th August in that year and spent about ten days in the colony, proceeding thence to Capetown.

In December, 1902, the Rt. Hon. Joseph Chamberlain, H.M. Secretary of State for the Colonies, arrived at Durban, and, after a brief stay in Natal, travelled overland to the other South African colonies.

Among other causes, the imposition, in 1905, of a poll tax of £1 on every adult male in the colony, led, in the following year, to trouble with the natives. The murder at Byrnetown of two men of the Natal Police led to the proclamation of martial law and to the execution of twelve natives for the murder. After short operations in the south and north-east districts the chiefs Bambata and Sigananda rose in rebellion in Zululand, where the field

force under Colonel (now Sir Duncan) Mackenzie operated round Nkandhla, and in half-a-dozen small engagements, of which the most important was that at the Mome Gorge, the rebellion in Zululand was quelled, Bambata being killed, and Sigananda surrendering. Almost immediately after, a fresh outbreak occurred in the Mapumulo district of the colony, but a fortnight's operations, including three small engagements, ended in the surrender of the principal rebels and the dispersion of the remainder. The troops were demobilised on the 16th July, 1906.

The murder of two loyal chiefs and other disturbances in 1907 led to the despatch of the Militia to Zululand, and on the 10th December Dinuzulu was arrested and conveyed to Pietermaritzburg. After a protracted preliminary examination he was tried before a special court and convicted on three counts of high treason and of harbouring rebels and sentenced to a term of imprisonment and to a fine.

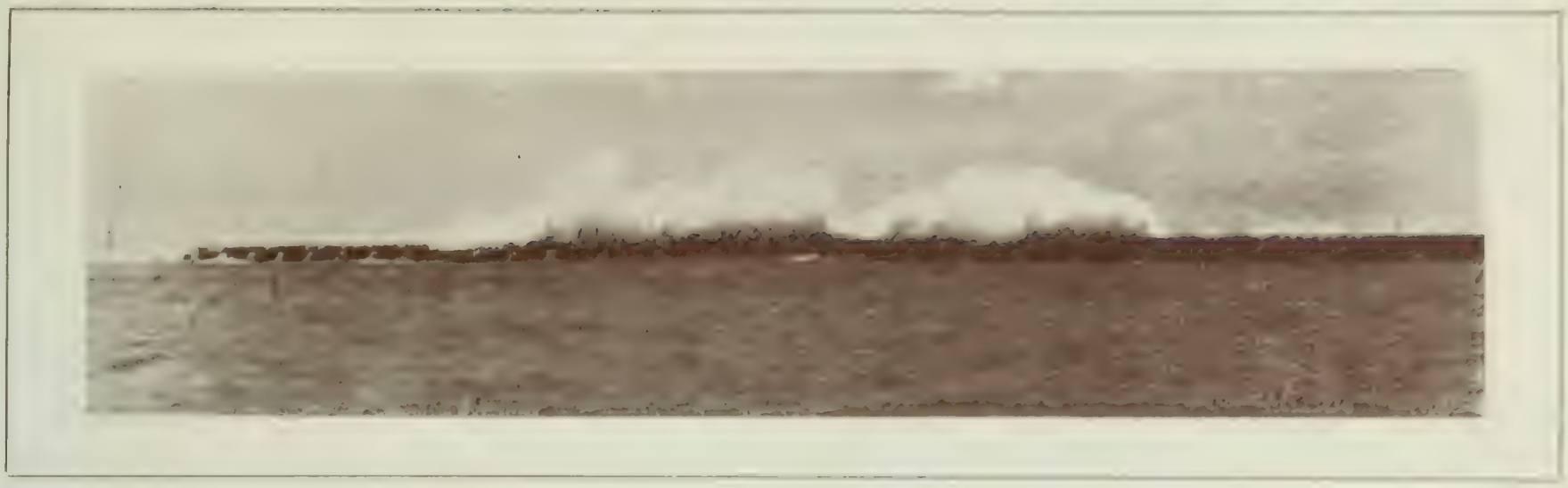
The National Convention

On the 12th October, 1908, a National Convention met at Durban to discuss the question of the Union of the South African Colonies, the importance of the occasion being marked by a visit to the port of a squadron of British warships. After various adjournments the Convention's report was published on the 9th February, 1909, in the form of a draft Act of Union. This draft Act was submitted to the Parliaments of the various colonies, the Natal Parliament passing an Act providing for its final submission by referendum to the people of the colony. After revision by the several colonies the draft Act was submitted to a further Convention, a revised draft Act being issued on the 15th May, 1909. On the 10th June, 1909, the revised draft Act was submitted to a vote of the electorate of Natal, with the result that 11,121 voted in favour of and 3,701 against it. The South Africa Act was duly submitted to the British Parliament and received the Royal assent on the 21st September, 1909, the new constitution coming into force throughout South Africa on 31st May, 1910. A copy of the Act forms an appendix to this volume.





The National Convention



DURBAN HARBOUR
FROM ROADSTEAD
TO QUAY

CHAPTER II



IRST impressions may, under certain circumstances and with certain places, prove false or unfavourable, but the voyager who rounds the picturesque Durban Bluff, and, crossing the bar, makes for the quayside must at once be impressed and captivated by the beautiful panorama which meets his gaze ; the vivid and satisfying effect is as delightful as it is permanent. As the ocean steamer glides along the entrance to the channel the imposing lighthouse, with the adjacent signal station, are seen from their vantage point on the bush-clad Bluff ; continuing our course along the waterway between the North and South piers—which have alike been the source of anxiety and profit to the Government Department—it is observed that the bay speedily widens out, being encircled by the Berea and town. Undoubtedly the best position from which to view the natural beauty of the bay and the surrounding hills would be from an aeroplane, but possibly a more stable substitute will be obtained from the heights of the Bluff. From this point the picturesqueness of the far-famed Berea, the excellent appointments of the town, and the ship-thronged wharves, extending right away to Congella, may be appreciated at a glance ; while in a northerly direction, backed by low undulating hills, is the eastern coast line leading away to Zululand and the rival port of Delagoa Bay.

THE ONE-TIME BAR

The bar exists only in name. After half a century of patient and vigorous toil this one-time impediment to navigation has succumbed to the many engineering expedients employed to encompass its lasting destruction. Owing to the presence of the piers, and the continual deepening operations of powerful

dredgers, a depth is now secured at the entrance to the harbour more than sufficient to admit the largest vessels with perfect ease and safety direct to the wharves, night or day, and at any state of the tide.

As an illustration of the enormous improvement effected within the last decade, it is interesting to point to the fact that the AVERAGE low water rate depth on the bar in the year 1895 was 12 feet 1 inch ; in 1905, 28 feet 8 inches ; in 1907, 32 feet 8 inches ; 1908, 33 feet 7 inches ; 1909, 34 feet 3 inches. Vessels, drawing 30 feet of water and over, frequently enter the harbour, and in 1909 eight vessels drawing between 30 and 31 feet were berthed inside.

The Union-Castle mail boats, several over 13,000 tons gross and 570 feet in length, and the White Star liners, drawing 30 feet, and 550 feet in length, now regularly work alongside the wharf and experience no difficulty whatever in entering or leaving the harbour.

The Development of Port Natal

Port Natal and its development has been perhaps one of the most difficult problems to which during the past half century Natal Governments have turned their attention. The obstacle, which in the past, checked the more rapid progress of Durban, as one of the most convenient outlets and inlets for a constantly-increasing trade, between the interior of South Africa and the outside world, lay in the existence of this one-time bar which up to a few years ago formed a sand barrier across the harbour entrance. Many were the physicians consulted in regard to Port Natal's constitutional disease, and so varied the methods of treatment tried, that it is marvellous that the patient, instead of succumbing under their hands should, as already indicated, have passed through the ordeal with such conspicuous success. At the risk of taxing the patience of the non-nautical reader we venture to epitomise the principal events in the history of Port Natal's development.

It is recorded that, once upon a time, a depth of one foot to two feet was to be found upon the bar at low water. Captain Rogers, who visited the country in 1868, reported that there was not above 10 feet or 11 feet of water on it in a spring tide. In 1851 the first attempt was made to remove the bar, the late Mr. John Milne being the engineer to whom the work was entrusted. His plan comprised North and South piers. That on the North was of a proposed length of about 2,300 feet. The South pier was to extend to the edge of the shelf of rock, about 700 feet. The total estimated cost of the two works was about £85,000. Nothing appears to have been done at the time on the south side. On the north side a length of about 300 feet of work was finished, and then the plan was discarded. The North pier was designed to run parallel with the Bluff and would have given practically the same width of channel as at present, but the entrance would have been restricted to 500 feet by the convergent angles given to the two works.

Captain Vetch, hydrographer to the Admiralty, was next consulted, and













Port Natal, 1875—1910

1.—*Port Natal, 1875.*
2.—*Main Wharf, 1875.*
3.—*Port Natal, 1910.*

he built two arms consisting of rough boulder work, one on the north and one on the south side. These were commenced about 1860 and cost nearly £200,000. The South arm was gradually washed away, and the North arm was picked up down to the level of low water ordinary spring tide in 1885 by Innes, who used it as a sort of quarry for works which he commenced in 1882. All that is now to be seen of Vetch's scheme is a low line of stone extending off from the beach opposite Alexandra road, just awash at low water, the end marked by an iron beacon.

Sir John Coode was then called in but the advice which he tendered was not followed, chiefly on account of the large expenditure which would have been involved thereby, and partly because of doubts as to the utility of the scheme. Little more was done in connection with the harbour improvement until 1881, thirty years after the first step taken, when a Harbour Board was constituted, with the late Mr. Harry Escombe as chairman. The late Mr. Edward Innes received the appointment of engineer, and active operations were once more commenced. At this time the average depth of water on the bar at low tide was eight feet. Milne's pier, as it was then called, was continued and a short breakwater constructed in a north-easterly direction from the Bluff. The result was not quite so satisfactory as had been anticipated, and Mr. Innes determined to lengthen the Bluff breakwater and give it a curve to the southward at its outer extremity. The works were pushed on, and in 1886 a great improvement at the entrance had been effected, 13 feet of water then covered the bar at low tide.

While Milne's plan only took the pier head to the bar, Innes ran his work right through it. As a matter of fact as the piers ran out the bar went out too, and it was only by dredging that relief was ultimately obtained. That Innes thought of dredging is also pretty clear. Dredging in those days was quite a different operation to what it is now. The only machine at the disposal of the engineers was the small bucket dredger *Platypus*. About 1886 Innes imported the first pump-dredging apparatus that was introduced into South Africa, and built a vessel to contain it (the present *Water Rat*), and he put that vessel to dredge in the inner harbour for reclamation purposes, the first gallon of liquid sand pumped out of the bay being taken from the spot where the Union–Castle mail boats are now berthed. But to refer again to the outer works ; when the first blocks were down on the rock ledge at the toe of the Bluff the sand banked up against



Pile driving.


Train of Concrete Blocks

them, and, in a short time the rock was 20 feet under. One storm alone at that time was estimated to have brought up in twenty-four hours no less than 48,000 tons of sand and lodged it in the bight. Mr. Innes lived only to see his breakwater completed for about half its present length, but when he died in 1888 the depth over the bar had increased by several feet. Mr. C. J. Crofts, late harbour engineer, was associated with Mr. Innes.

The next to match his wits against this obstinate problem was Mr. C. W. Methven, who was appointed engineer in 1889. He urged the creeping of the South or Bluff breakwater to the north, and the still further extension of the North pier. The proposals were acceded to, and the plan was in course of execution when, in 1892, all outer works were discontinued and a process of dredging entered upon. By 1895 dredging operations had procured a depth of 13½ feet on the bar at low water, and during the early months of 1896 this had reached 18 feet.

It had already been decided by Parliament to refer the matter to experts in marine engineering, and Sir Charles Hartley and Mr. (now Sir John) Wolfe Barry were selected as the Government's advisers. The former arrived in the colony in June, 1896, and after a careful study of the bar—the causes which lead to its formation, and the efforts which had been made to dislodge it—returned to England to confer with his colleague.


Diver.

The two experts, after many months' consideration, tendered their report, which, besides advocating the continuance of dredging operations, suggested that the North pier should be extended in a southward curve until on a level with the Bluff breakwater, thus narrowing the entrance.

The plans submitted for dealing



Durban Harbour from the Bluff

with the bar from time to time could be numbered by the score. Two expedients were tried which might be mentioned. In 1881 the enemy was attacked with a mighty charge of dynamite, but withstood the assault which appeared to discourage further attempts of the kind.

Some 15 years ago Ireland's eroder, an apparatus based on the principle of the archimedian screw, was given a trial, but without success.

South or Innes' Breakwater

The South breakwater was started by the late Mr. Innes in 1884, but he died in 1887 and the works were carried on by Mr. Crofts until Mr. Methven's appointment in 1888.

The South pier was extended but not quite completed by Mr. Methven, who left in 1895, when he was succeeded by Mr. Crofts who brought this work to completion. The total length of this pier, from end to end, is somewhat over 2,600 feet, and it was finally completed in 1903 at a total cost of nearly £300,000.

North Pier

This was part of Milne's scheme originally, and was carried on by him for a distance of roughly 450 feet, but this was in 1857. Innes came on the scene in 1881 and, altering this scheme somewhat, carried on the work for



R.M.S. "Armadale Castle," 12,973 tons, at Paul's Wharf

about a further 1,850 feet before he died in 1887, thus it remained until Mr. Methven, who arrived the following year, re-commenced this work in 1891 and carried it forward a further 1,600 feet or thereabouts, and completed it in 1894. No further extension took place here until Sir Charles Hartley and Sir John Wolfe Barry, being consulted in the matter, recommended that this pier be carried over from that point in a curve towards the South pier, thus reducing the width at the entrance from 800 to 600 feet; this was carried out by Mr. Crofts, who succeeded Mr. Methven in 1895, the addition being completed in 1904. The total length of this pier, from end to end, is about 4,150 feet, and the cost £177,500.

The channel between the Bluff wharfage and the repairing quay on the Point side, immediately inside the piers, attains a breadth of 1,100 feet.

Bluff Lighthouse and Signal Station

The summit of the Bluff, proper, is 211 feet above the level of the sea. The Bluff lighthouse, an iron tower painted white, is 81 feet in height, and shows a white revolving light (dioptric) at an altitude of 282 feet above high-water level. It reaches its greatest brilliancy once every minute and is visible in clear weather at 24 miles distant. A watch is kept at the Bluff signal station day and night, and all communications by signal with vessels outside the harbour are made through that channel, whence they are transmitted to the Port Office look-out signal station on the other side of the harbour channel, and *vice versa*.

The time ball is situated about 750 feet back from the lighthouse and drops at one o'clock p.m. Natal uniform mean time (corresponding exactly to



Paul's Wharf, Central (shewing 50-ton hydraulic crane)

eleven o'clock a.m. Greenwich mean time) on every day except Sunday. A wireless telegraph station has been placed in close proximity to the time ball and has been in operation since the end of June, 1910.

It is not until we reach the inner end of the entrance channel that a comprehensive view of Durban is secured, then its size, compactness and charming situation are beheld, while the near prospect of the Bluff and Wentworth hills, the broad expanse of the beautiful bay, and the refreshing life and movement on *terra firma*, produce an effect wholly surprising and agreeable.

The Bay

The Bay, which lies tranquilly before us, next invites our attention. This magnificent sheet of water has an area of some eight square miles. Naturally it is a favourite resort for yachting, boating, and fishing, while its Bluff and island also attract many visitors. Casting a glance to the left as our boat reaches the end of the channel will be seen the useful if not very ornamental coaling appliances, situated on the extensive wharfage provided in order to facilitate the immense coaling work at Port Natal.

Adjacent to the Bluff wharf is Wests station, a favourite pleasure resort, —as the Bluff affords greater seclusion than the more popular Ocean Beach. Some 2,635 feet of wharf and quay, equipped with a coal dumper and two transporters capable of loading up to 450 tons per hour, denote the great importance of this part of the harbour. Wests may also be reached by crossing the channel from the main wharf.

Running townwards from the end of the wharf on the north side is the Victoria Esplanade, a mile and a quarter in length, and built at a cost of £77,000.

The Point

In due course we reach the quayside and alight for the first time on the soil of "The Garden Colony."

At the Quay

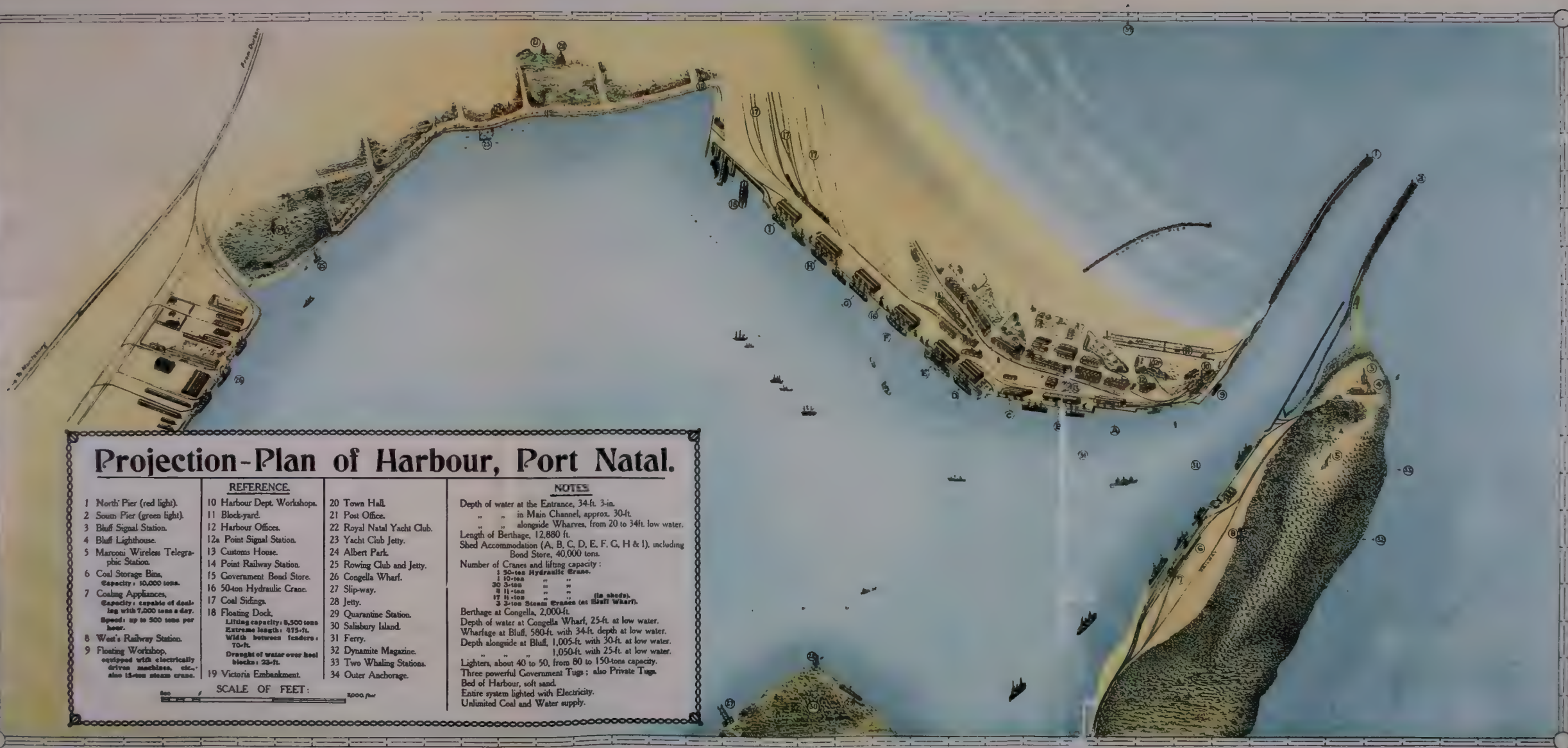
Disembarking at the public wharf we are at once sensible to the activities associated with a busy port. Within the range of vision are capacious storage sheds, warehouses, and offices, prominent of which stands the present Customs House. Running parallel with the broad quayside road is the main thoroughfare, Point Road, busy with its traffic of electric tram cars, cabs and rickshas, travelling to all parts of the town and suburbs. Having concluded negotiations with the customs officer to the satisfaction of our own conscience and the Government, and having entrusted our luggage to the official delivery agent, we take the opportunity of a ramble round the docks.

The scene at the busy wharf is crowded with interest and suggestiveness to the imaginative mind, and this interest is only accentuated when it is remembered that the port is one into which a cosmopolitan population finds entrance.

At any of the principal Point wharves peoples from almost all countries and of all shades can be seen. Strolling along the busy quays—strewn with all manner of merchandise, loading or unloading—one sees countless spars and funnels of ships from all quarters of the globe touching the sky line as they dwindle away in the distance; labourers passing to and fro, railway trucks discharging their commodities for export, others ladened with weighty cargoes for the interior, all make up one noisy animate scene not readily forgotten. Extending our walk as far as the jetty we observe passengers waiting to be ferried across the channel. Across the bay is an ocean liner steering on its way to the floating dock, or to the northwards timber ships discharging at the Congella wharf. In one direction a sailing vessel is being piloted out to the ocean, and in the opposite an ocean tramp makes its way to the Bluff wharf for coal. Yachts and other craft skim quickly over the harbour waters, while, as if by contrast, a boat is coming with true naval swing from a man-of-war to land its commander on the quay. Truly the port has a "fascination frantic" to the man whose imagination is vigorously alive to the happenings around him.



Passengers Landing.



Projection-Plan of Harbour, Port Natal.

REFERENCE.

1 North Pier (red light).
2 South Pier (green light).
3 Bluff Signal Station.
4 Bluff Lighthouse.
5 Marconi Wireless Telegraphic Station.
6 Coal Storage Bins, Capacity: 10,000 tons.
7 Coaling Appliances, Capacity: capable of dealing with 7,000 tons a day. Speed: up to 500 tons per hour.
8 West's Railway Station.
9 Floating Workshop, equipped with electrically driven machines, etc.; also 15-ton steam crane.
10 Harbour Dept. Workshops.
11 Block-yard.
12 Harbour Offices.
12a Point Signal Station.
13 Customs House.
14 Point Railway Station.
15 Government Bond Store.
16 50-ton Hydraulic Crane.
17 Coal Sidings.
18 Floating Dock. Lifting capacity: 8,500 tons. Extreme length: 475-ft. Width between fenders: 70-ft. Draught of water over keel blocks: 23-ft.
19 Victoria Embankment.
20 Town Hall.
21 Post Office.
22 Royal Natal Yacht Club.
23 Yacht Club Jetty.
24 Albert Park.
25 Rowing Club and Jetty.
26 Congella Wharf.
27 Slip-way.
28 Jetty.
29 Quarantine Station.
30 Salisbury Island.
31 Ferry.
32 Dynamite Magazine.
33 Two Whaling Stations.
34 Outer Anchorage.

SCALE OF FEET: 500 1000 feet

NOTES

Depth of water at the Entrance, 34-ft. 3-in.
" " in Main Channel, approx. 30-ft.
" " alongside Wharves, from 20 to 34ft. low water.
Length of Berthage, 12,880 ft.
Shed Accommodation (A, B, C, D, E, F, G, H & I), including Bond Store, 40,000 tons.
Number of Cranes and lifting capacity:
1 50-ton Hydraulic Crane.
1 10-ton " "
30 3-ton " "
8 1½-ton " "
17 ½-ton " " (in sheds).
3 2-ton Steam Cranes (at Bluff Wharf).
Berthage at Congella, 2,000-ft.
Depth of water at Congella Wharf, 25-ft. at low water.
Wharfage at Bluff, 580-ft. with 34-ft. depth at low water.
Depth alongside at Bluff, 1,005-ft. with 30-ft. at low water.
" " " 1,050-ft. with 25-ft. at low water.
Lighters, about 40 to 50, from 80 to 150-tons capacity.
Three powerful Government Tugs; also Private Tugs.
Bed of Harbour, soft sand.
Entire system lighted with Electricity.
Unlimited Coal and Water supply.



THE PORT:
ITS CAPACITY AND WORK

CHAPTER III



OME four millions of money have been expended in the building and equipping of South Africa's principal port, and it will not prove unprofitable to peruse the undermentioned list of its very complete accommodation and excellent facilities.

It may be stated that it is no uncommon occurrence for a vessel to discharge 4,000 tons of cargo, take in 1,000 tons of coal, and a full freight of wool, maize, bark, and other colonial produce and clear within six days.

WHARFAGE AND DEPTH ALONGSIDE

On the Point side there are 5,245 feet length of concrete quay with a low water (on spring tide) depth of 23 to 34 feet alongside, and 1,400 feet of timber wharfage with a depth of 16 to 20 feet alongside, which however is being replaced by a permanent quay having a low water depth of 30 to 34 feet alongside. In addition there are two timber jetties and one fishing jetty, with an aggregate length of 2,100 feet, and a depth of 15 to 21 feet. On the Bluff side there are 1,050 feet of timber wharfage, giving a low water depth of 25 feet alongside, and a quay wall of 1,585 feet giving a low water depth of 30 to 34 feet. This represents in all 6,830 feet concrete quay wall with a depth of from 23 to 34 feet. Ten years ago the concrete quay wall was represented by a length of 4,275 feet on the Point side only.

At the Congella

1,500 feet of timber wharf, with a depth of 25 feet at low water. This wharf is provided with a large area of background leased for industrial purposes with preferent wharf accommodation. The wharf can be extended for miles, and an extension is now in hand to meet the needs of prominent British industrial firms who have taken up lots.

It will thus be seen that at present a total of 12,880 feet wharf berthage is provided for the accommodation of the shipping.



Congella Wharf

Cranes at Port Natal.



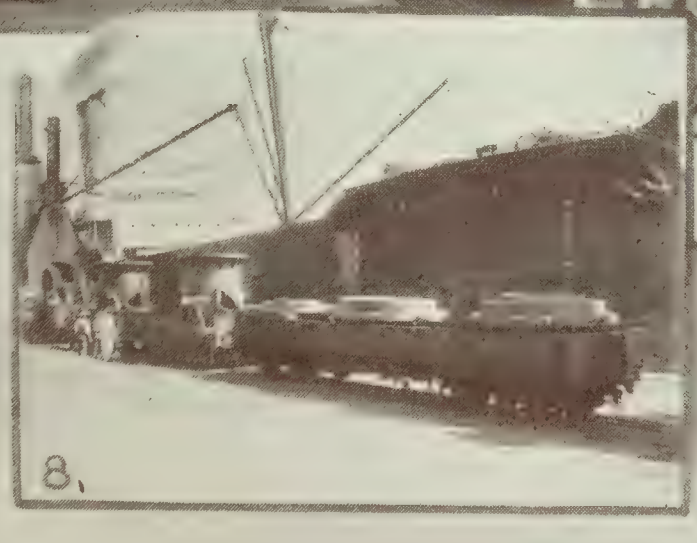












1.—50-ton Crane lowering 25-ton Boiler
2.—Perspective View of Cranes
3. Unloading Heavy Machinery
4. 20 ton Electric Gantry Crane, 136 ft. span
5.—Crane and Warship
6.—Unloading Goods from Ship
7.—Loading Boiler in Well-wagon
8.—Train of Heavy Machinery

General Equipment and Accommodation

The following is the crane equipment of the port :—

POINT SIDE—One 50-ton hydraulic crane.
One 10-ton hydraulic crane (travelling).
Thirty 3-ton hydraulic cranes (travelling).
Four 30-cwt. hydraulic cranes (travelling).

The average working of these 30-cwt. and 60-cwt. hydraulic cranes is 30 tons per hour.

BLUFF SIDE—One 3-ton steam crane (travelling).

CONGELLA—One 3-ton steam crane (travelling).

The 15-ton steam crane on the floating workshop supplements the wharf equipment.

WHARF SHEDS—Seventeen 30-cwt. hydraulic cranes.



Main Wharf at "A" Shed

Wharf Sheds

There are nine of these sheds with a storage capacity of 100,000 tons, and the wharves and sheds are provided with powerful electric lighting. Water of best quality is laid on to all berthage, and the supply is unlimited. Railway lines are laid on the wharves, sheds, and outer yards to meet every possible requirement, and the wharves are equipped with hydraulic capstans for moving trucks.

EXTENSIVE OPEN SPACES are also available for the storage of timber and rough imports.



Quayside Road



Train of 25-ton Boilers

Durban to Johannesburg

GOVERNMENT CUSTOMS AND RAILWAY BOND STORE

The Bond Store is one of the largest and best equipped buildings at the port. The dimensions are:—Main building—336 feet by 120 feet; 160 feet by 75 feet; having a total floor space of 61,747 square feet.

A 50-ton hydraulic lift to take trucks to the first and second floors has been provided.



Bond Store

Floating Dock and Workshop

The floating graving dock is one of the most recent, as well as one of the most valuable, acquisitions to the port. It is 475 feet long by 70 feet wide, with a draught of 23 feet. It will take vessels up to 8,500 tons dead weight, and 475 feet in length.



Floating Dock

With s.s. "Maine," 7,914 tons, raised for survey

The first vessel lifted was the s.s. *Kent* (7,700 tons gross) on the 29th June, 1904. Port Natal is likely to rise higher yet among the commercial ports in providing the world with this costly appliance.



Floating Workshop

An important adjunct is the FLOATING WORKSHOP, completely equipped, with machine tools and other necessary fittings and appliances, electrically driven, including a 15-ton steam crane.

DREDGING FLEET

This consists of two large and one small suction sea-going dredgers; a stationary bucket dredger, and four stationary suction dredgers.

The newest of the powerful class, the *Cetus*, is a hopper dredger of 3,000 tons capacity, which she loads in less than one hour.



Dredger at work in the Bay

Government has recently ordered from the makers, William Simons & Co., of Renfrew, a clay-cutting dredger, about 280 feet long, 40 feet beam, and costing £75,000, capable of filling a 2,000 ton hopper in one hour. It is constructed to deposit the clay direct from the hopper, or pump it through pipes for reclamation purposes. The chief feature is the clay-cutting appliance for dealing with the bay bed, where there is a considerable clay deposit.

Tugs

Besides the three Government tugs there are a number of private ones employed in the service of the port.

Departure of Mail Boat

Tugs slewing R.M.S. "Walmer Castle," 12,546 tons





Railway Connections and Accommodation

Railway lines serve all wharves. The railways connect the port with every part of South Africa. Ample storage accommodation has been provided at the Point and Durban depôts.

A complete system of ELECTRIC ARC LAMPS illuminate the wharves and sheds at night.

PORT ACCOMMODATION

A projection plan, specially prepared for this work, shewing the port accommodation, will be found at the beginning of this chapter. It embraces a key which it is hoped will be found a useful reference to the general reader.

PORT OF NATAL TRADE AND OTHER STATISTICS

	1899	1904	1909
Number of Ships entered at Port Natal ...	925	969	1,216
Tonnage of Vessels entered at Port Natal (net reg.) ...	1,763,370	2,178,248	3,197,369
Tonnage of Cargo (inwards)	521,135	797,017	548,777
Value of Cargo (inwards)	£5,354,248	£10,673,943	£7,629,697
Value of Goods exported by sea :			
Colonial	£1,122,365	£1,046,342	£2,686,386
Non-Colonial	202,837	309,999	128,715
	£1,325,202	£1,356,341	£2,815,101
Tonnage of Coal :			
Exported	7,893	12,431	404,317
Bunkered	163,727	383,147	835,001
	171,620	395,578	1,239,318
Gross registered tonnage of largest Vessels which entered the Harbour ...	10,387	12,973	12,975
Greatest draught to or from Harbour	23 ft. 5 in.	27 ft.	32 ft. 4 in.

VISIT OF NAVAL SQUADRON TO PORT NATAL

The visit of Admiral Sir Percy Scott, with a squadron of four first-class armoured cruisers, which had been sent by the Imperial Government in honour of the National Convention in Durban, was a memorable one, and furnished the British people with evidence that they have in Port Natal—with its harbour and its coal supply—an Imperial asset whose importance is not to be disregarded.


Visit of
Naval
Squadron
to
Port Natal,
1908.

Examples of the Class of Vessels regularly using the Harbour

S.S. *Balmoral Castle*	13,361	gross tonnage	570 feet over all.
Edinburgh Castle	13,326	"	570 "
Kenilworth Castle	12,975	"	570 "
Armadale Castle	12,973	"	570 "
Walmer Castle	12,546	"	570 "
Saxon	12,385	"	570 "
Suevic	12,531	"	550 "
Runic	12,482	"	550 "
Medic	11,985	"	550 "
Persic	11,973	"	550 "
Afric	11,948	"	550 "
Winnefredian	10,405	"	570 "
Bavarian	10,376	"	520 "
Atlantian	9,355	"	500 "
Custodian	9,214	"	500 "
Indian	9,124	"	507 "
Mechanician	9,044	"	507 "
Armenian	8,825	"	530 "
Victorian	8,825	"	530 "

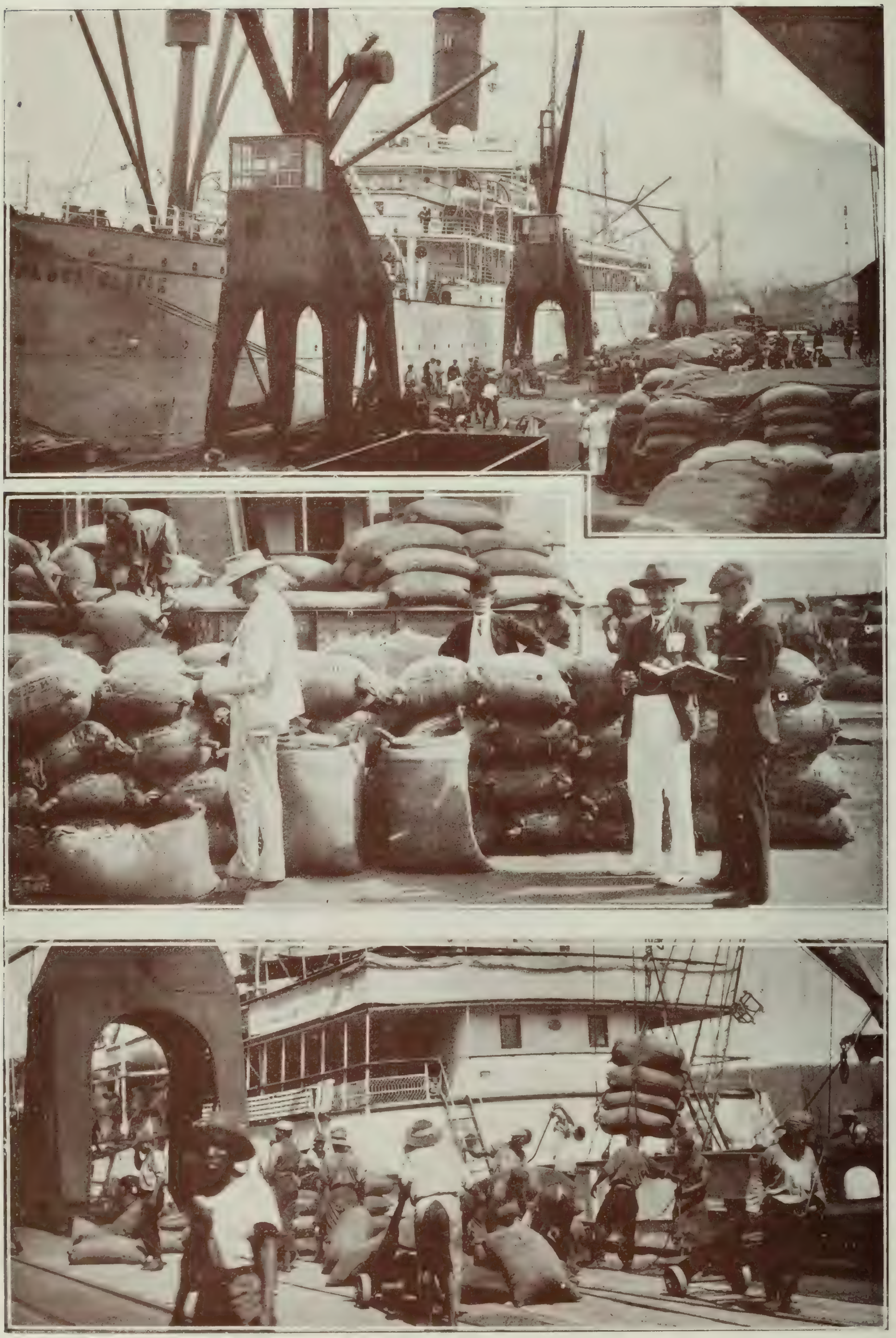
Maize

It may fairly be claimed for maize that South Africa hopes by its means to build up a robust and prosperous agricultural industry. Until three years ago its cultivation was limited in a great degree to local needs, and in consequence the acreage ploughed was comparatively insignificant. All this has, however, been changed, thanks to the initiative of the South African Government who induced the Union-Castle Mail Steamship Co. to assist in bringing it into the European market, and the practical help so given—combined with special low rates over the South African railways—brought the cost of transport from the farm to that market down to from 2/- to 2/9 per muid bag of 203lb. gross weight, according to the distance of the farm from the port of shipment. The effect of these efforts on the community cannot be better exemplified than by the following comparative figures of the export through Durban :—

1904	...	89,214 bags.	1907	...	503,647 bags.
1905	...	116,228 "	1908	...	537,921 "
1906	...	139,439 "	1909	...	1,001,081 "

The chief Government officials at the port of Durban are :—

Capt. John Rainnie, Port Captain.
Mr. D. C. Davey, Harbour Engineer.
Mr. George Mayston, Collector of Customs.
Mr. J. McConnachie, District Traffic Supt., South African Railways.



Shipping Maize

The War of 1899-1901 taught many lessons and, in a commercial sense, proved more potently than would have been possible under more peaceful conditions the peculiar advantages of Natal and the fact that the port of Durban was then and is now still more capable of meeting any contingencies. As with her maritime resources, so the railway, the facilities in connection with which are being taxed to the uttermost; but no matter how great the demand it is promptly and efficiently met, and there need be no misgiving that the achievements of these two important sections of the public service will find a just reward in the advancement and prosperity of the province.

Later Developments at the Port

It was of course unavoidable that with the enormous growth of business at the port the Government should have felt it imperative to launch out in costly schemes for improving and augmenting its facilities and capabilities.

A brief record has already been given showing the by no means uninteresting fight which was carried on to create and maintain an efficient and safe entrance from the Indian Ocean to Durban's port, and a word now requires to be said about the improvement of the inner harbour.

A comprehensive plan for the improvement of the inner harbour was



General View of Wharves



Whaling at Port Natal

drawn up by Sir Charles A. Hartley, K.C.M.G., F.R.S.E., and Sir J. Wolfe Barry, K.C.B., F.R.S., in December, 1902, and received the full approval of the Government. The recommendations of these eminent engineers are being acted upon, although there has been some departure from the order originally laid down in which the proposed new works were recommended to be carried out. The proposed quay in front of the Esplanade has, in accordance with an agreement arrived at between the Government and Corporation, been allowed to stand down for the present, but new wharfage has been provided at Congella to the extent of 1,500 feet, with a low water depth of 25 feet, and the reclamation of land at the rear of this wharfage—together with the construction of ship channels to Congella in conjunction with the Salisbury Island and Cato Creek channels are the most important improvements connected with the inner harbour.



1.—H.M.S. "Good Hope" leaving the Harbour
2.—Bluff Lighthouse and Signal Station
3.—H.M.S. "Devonshire" entering the Harbour
4.—Crowd on the breakwater bidding farewell to the Cruiser Squadron
5.—R.M.S. "Kinfauns Castle" in the channel



Coaling

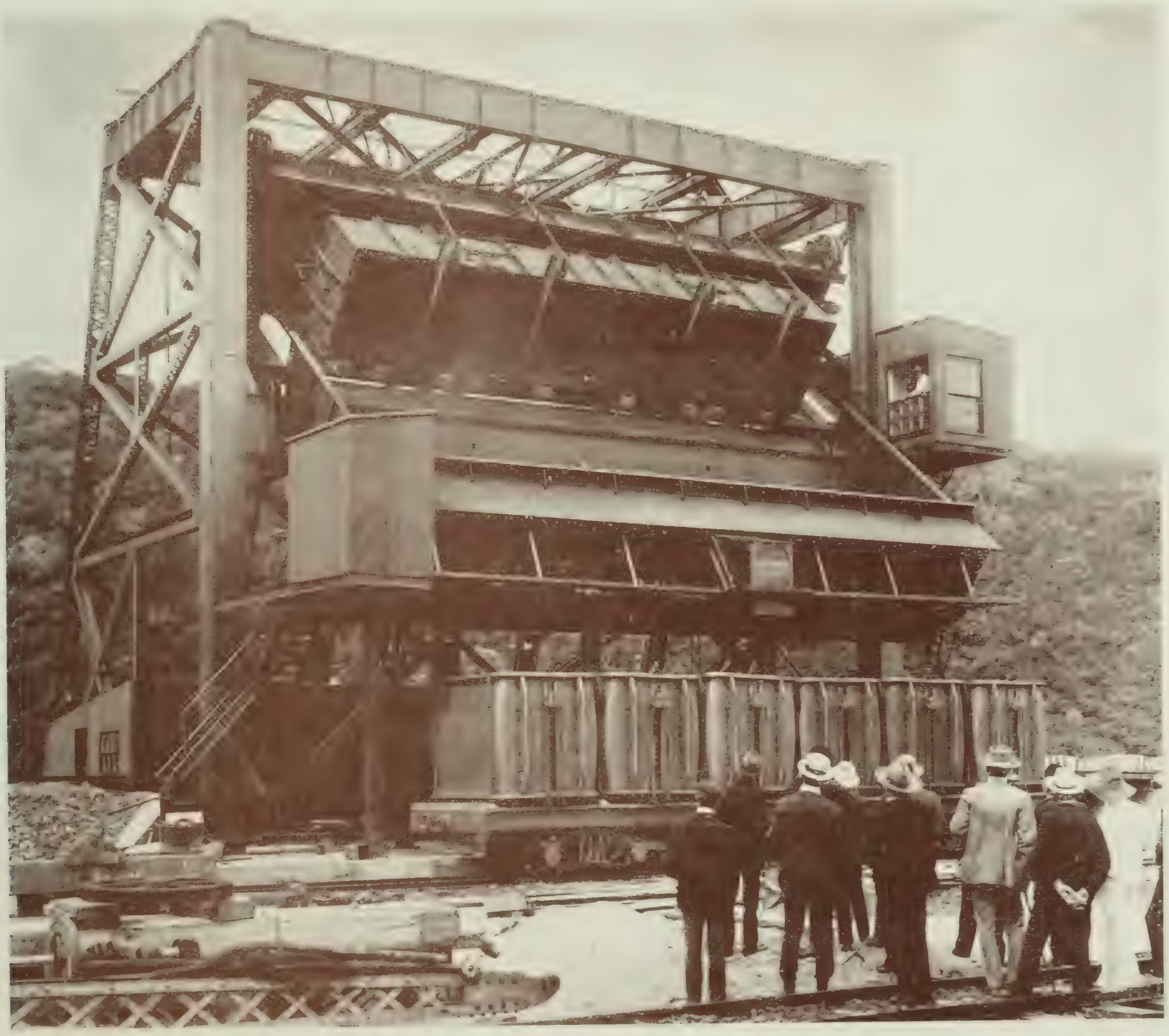
Plant

The quay wall at the Point is gradually being completed; while the quay wall at the Bluff has been constructed on lines approved by these engineers.

Salisbury Island, which is in convenient proximity to the Bluff side, was offered by the Government to the Admiral of the Cape Station. This offer has been accepted by the Admiralty for purposes which at present have not been disclosed.

Coaling Plant

This plant loads vessels at the rate of 400 to 450 tons per hour. The capacity of the storage bins is 10,000 tons. The plant is worked by electricity. The "dumper" is capable of dealing with loads up to 120 tons, and the "transporters" carry "drop bottom" buckets of six-tons capacity and tip the coal into the hold or bunkers of steamers from such a height as not to break it. The weighing of coal in course of shipment is done automatically, as the cars carrying the "drop bottom" buckets are on their way to the "transporters."



Coaling Tip at Bluff



1 Water Police Station
2 Customs House
3 Point Railway Station
4 Harbour Dept. Offices

PLAN OF DURBAN.



REFERENCE:

1. Floating Dock.
2. Addington Hospital.
3. Police Station.
4. Town Hall (Municipal Offices, Library, Museum & Art Gallery).
5. Public Baths.
6. Post Office.
7. Market House.
8. Railway Station.
9. D.L.I. Hall.
10. Fire Station.
11. Telephone Exchange.
12. Theatre Royal.
13. Albert Park.
14. Electric Power Station.
15. Technical Institute.
16. Bulwer Park.
17. Berea Park.
18. Mitchell Park Zoo.
19. King's House.
20. Sutton Park.

Municipal Tramways thus: ———



DURBAN: SOUTH AFRICA'S SEASIDE RESORT

CHAPTER IV

DURBAN: THE TOWN



JUST as no man by taking thought may add one cubit to his stature, so no pen, even that of a Rudyard Kipling or a Rider Haggard, can add to or take from the beauties inherent in the many interesting records which have made the colony of Natal famous, and the seaside town of Durban a first favourite with health-seekers and tourists, not only in South Africa but with those who come from beyond her borders. But while it is not given to mere man to adequately express in pen pictures the charm of this beauty spot, which nature has painted during one of her more lavish moods, it is possible in several ways to bring these beauties into closer touch with the over-worked business man—grown sick of the eternal dust of the Transvaal and the materialism and turmoil of its golden pivot—the isolated dwellers on the veldt and remote farms, the up-country townsman, and the touring public who may visit these shores.

Max O'Rell once referred to Durban as "the prettiest and most coquettish town in the South African Colonies," and if that be the opinion of a visitor and writer of much insight and observation a decade ago, what would be the opinion of those who visited the seaside town and port of Durban to-day—after its years of wakefulness and watchfulness in all matters of municipal import?

But the novelist with his delicate distinction in the use of the English vocabulary, displayed wisdom in selecting the epithet "coquettish," for the word seems exactly to express one—if not *the*—peculiar charm of Durban, with the

blue Indian Ocean at her feet, and a bay—that might dispute the palm of beauty with the Bay of Naples—embracing her like a glorious arm, such as no other town on the southern portion of the continent possesses.

Sprightliness, cleanliness, and brilliancy of colour, are some of the first characteristics which impress the sense of the visitor. A thriving port, a busy outpost of the world of commerce, and a most charming and fully-equipped seaside resort, Durban cannot fail to interest the most jaded land-locked resident from the interior colonies who may make his journey from the Transvaal or Orange Free State, or the stay-at-home Britisher who determines to try his fortune in the "garden colony."

Durban: Looking East.



The town of Durban embraces three distinct parts—Addington, the town proper, and the Berea. Addington, more familiarly known as the Point, is the centre of maritime interests and has already been described ; the second section, the town proper, is of course the venue of commercial and general activity ; while the world-famed Berea with its beautiful residences and grounds semi-girds and beautifies the whole.

Durban is 6,800 miles from England by the west route, 823 miles from Capetown, 300 miles from Delagoa Bay, and 482 miles from Johannesburg.

Durban, or more correctly D'Urban, was adopted as the name of the township in 1835, in compliment to Sir Benjamin D'Urban, the then Governor of the Cape. At that time the site of the town was mostly an expanse of sand and scrub, the home of both small and great beasts. To-day the Municipality by reason of its progress to its present dimensions, affluence and amenities, has earned the well-deserved reputation of being not only the most thriving of South African seaports but a town of world-wide beauty and charm.



SIR BENJAMIN D'URBAN.

The area of the Borough, including town lands,

is 12 square miles. The population according to census taken in May, 1911 stands at 64,689, namely, 30,030 Europeans, 16,131 Indians 15,489 Natives, and 2,039 others. The white population represents a third of that of the entire colony.

The European birth rate in 1910 was 28·3 per thousand, and the death rate 6·5 per thousand. The death rate is lower than any other town in South Africa, and by way of comparison it is interesting to record that the death rate in England and Wales in 1908 was 14·7 per thousand. The public health and sanitary conditions of Durban are unsurpassed in any town of South Africa. Within recent years £75,000 has been expended in the reclamation of certain swamp areas existing in the Borough, the result of which has been to add very much to its salubrity. The incidence of infectious diseases is vigilantly watched, and the remarkable diminution is proof of the satisfactory methods employed.



Enteric fever is now practically non-existent; and for the past two years no fresh cases of malaria have developed in Durban. Of the commoner infectious diseases, such as scarlet fever and diphtheria, not a single death occurred during the past year.

Though the weather in summer may be considered a trifle warm for constitutions of English origin, large numbers of visitors come to Durban during the mid-summer months. During the winter months, however — namely, April to September — the climate is certainly as delightful as any in the world; cloudless blue skies from week's end to week's end and then a shower of rain to relieve any possible monotony, cool breezes from the south-west, the fresh salt smell of the ocean, and an equable temperature day and night. Durban through these months enjoys a climate that could scarcely be excelled.



Rickshas plying for hire

MUNICIPAL MATTERS

The town is admirably provided with hotels, boarding establishments, and restaurants. The Municipality is reputed to be the ablest-managed town in South Africa, the Town Council consisting of 14 members, from amongst whom the Mayor of the Borough is annually appointed. Under the new distribution arrangement the town will have five representatives in the Union Parliament, and seven members for the Provincial Council.

In the year 1909 the rateable value of the Borough was £9,494,400 which compares with £4,987,320 in 1899. The general rate was 2d. and the water rate ½d. in the pound, at which figures the rates have stood unaltered since 1897. The Municipal revenue proper was £376,036, and the Expenditure £369,606, whilst the total assets were £4,368,370 and liabilities £3,064,471. Among the assets are the valuable trading undertakings, viz.: electric light, trams, water, telephones, and municipal markets,



Marine Hotel

the trade profits on which for the year 1909, if capitalised, at 4 per cent. would amount to considerably more than the net loan debt of the borough



The area of the unalienated town lands is 4,220 acres, standing at a valuation of £1,375,303. The sum of £538,534 has been spent in thoroughly sewering and

draining the borough ; £540,000 has been expended upon the excellent water service system, £280,000 on the electric light and power installation, and £430,000 on the electric tramways.

The street mileage is over 100 ; the main roads and avenues being well-made, laid at right angles, broad and well-formed. Trees have been liberally planted, wherever suitable, and at the flowering season these form one of the chief charms of this beautiful town. There is a plentiful supply of cabs, motor cars, pony rickshas (light hansoms), and rickshas drawn by natives. The Town Council owns and operates an excellent telephone system, which embodies the latest improvements in telephone practice, and this convenience is to be found in quite a large proportion of private residences, in addition to its commercial utility. The Corporation market-house is another



source of revenue; it is well-managed, and is equipped as an exchange for fish, meat, fruit, vegetable and farm produce. Auctions are held here every morning.

Within the last few years Durban has been transformed by the pulling down of unpretentious buildings in all leading thoroughfares, and the erection in their places of spacious, artistic, and commodious business structures. The name of "store," applied to many commercial premises, seems an anachronism in relation to the splendid edifices which now give to the town the unmistakeable air of importance and prosperity.

Corporation lands are being continually thrown open for building and other purposes on reasonable terms. In the direction of municipal trading the town possesses an excellent tramway service, worked on the overhead trolley system. It was opened for traffic on May 1st, 1902, superseding the horse cars which had been run first by a private company and had been municipalised by burgesses, in 1898, as a first step towards the electrical equipment of the tramways. At the inauguration of the present system, in 1902, it consisted of 20 miles of single track. A year after the opening there were 46 cars in use. For the year 1909 the mileage was 30·57, and the number of cars 67.

In several directions projects are being mooted for connecting the borough system with suburban districts.

The Power Station Buildings, in Alice Street, are upon a scale sufficient to house all the electrical plant required for lighting, as well as for other purposes.

The visitor who desires to see what Durban is like, as regards its business thoroughfares and its nearer suburbs, and who can appreciate bird's-eye views of town, and shipping, and sea, and undulating landscape, will be rewarded by going over any part of the Durban Electrical Tramway system, and especially by travelling over the circular route (to be described hereafter) from the post office, along West Street, up the slope of the Berea, over Musgrave Road, and round by Stamford Hill back to his starting place. He will thus survey the ever-changing panorama, which will convince him that Durban has claims to be considered one of the most prettily-situated and intrinsically-attractive seaports in the world.

Amongst the great undertakings owned and managed by the Corporation of Durban, a chief place is claimed for the water supply system, on which the health and comfort of the inhabitants are in a large measure dependent. The consumption is at present about $5\frac{1}{2}$ million gallons per diem but the supply is practically unlimited for all purposes, domestic and industrial. In addition to the natural sources of supply a reservoir has been constructed, with a capacity of 664 million gallons of water, to meet any case of emergency. The clear water storage reservoirs have a capacity of over 170 million gallons. The cost to the burgesses is no more than an annual payment of $\frac{1}{2}$d. in the pound on the freehold value of their property.









DURBAN

Municipal Buildings.





Durban's sanitation system is quite "down to date," and the health of the town has already been indicated by the low death rate.

As a seaport town, Durban bears a good reputation for orderliness as well as cleanliness. There is a large body of European and Native constables.





1. *Scandinavian Church*
2. *Mosque*
3. *Wesleyan Church*
4. *Baptist Church*
5. *Roman Catholic Church*
6. *Congregational Church*
7. *Presbyterian Church*
8. *St. Paul's Church*
9. *Synagogue*



Sanatorium.





There is very little serious crime however, the natives being forbidden to carry weapons or to buy liquor. The Indian population is docile and law-abiding.

The admirably-equipped fire station is situated in Pine Street (with a sub-station at the Point), and is furnished with all the latest time-saving appliances. Both the police force and fire brigade are under municipal control.

Religious and Social Institutions

The religious life of the town is represented by churches of every denomination ; while the Educational Department of the colony has provided many well-organised schools in different parts of the town.

Two well-conducted journals of long standing and extensive circulation are issued in two editions daily ; the *Natal Mercury* in the morning, and the *Natal Advertiser* in the afternoon. Both newspapers, besides giving full attention to local matters, are supplied with elaborate cable services which keep them abreast with the general news of the world as completely as many of the leading journals in the United Kingdom.

The public library and a free reading room, under the control of the Town Council, are housed in the municipal buildings, with an entrance in Smith Street. There are over 14,000 books in the library, and the reference department is said to be second to none in the colony. In the reading room there are over one hundred newspapers and magazines. The ordinary terms of subscription are as follows :—Life, £7 ; double yearly, £1 10s. 0d. ; yearly, £1 ; half-yearly, 10s. ; quarterly, 5s.

There are the usual benevolent and political institutions : the Durban Home (for the unemployed), also the orchestral, choral, literary, theatrical, and other associations. The public baths in West Street facing the Town Gardens, which were erected and are controlled by the Municipality, contain spacious swimming, Turkish, and slipper baths.

Several private hospitals and sanatoria are in existence, besides the Natal Government Hospital at Addington.

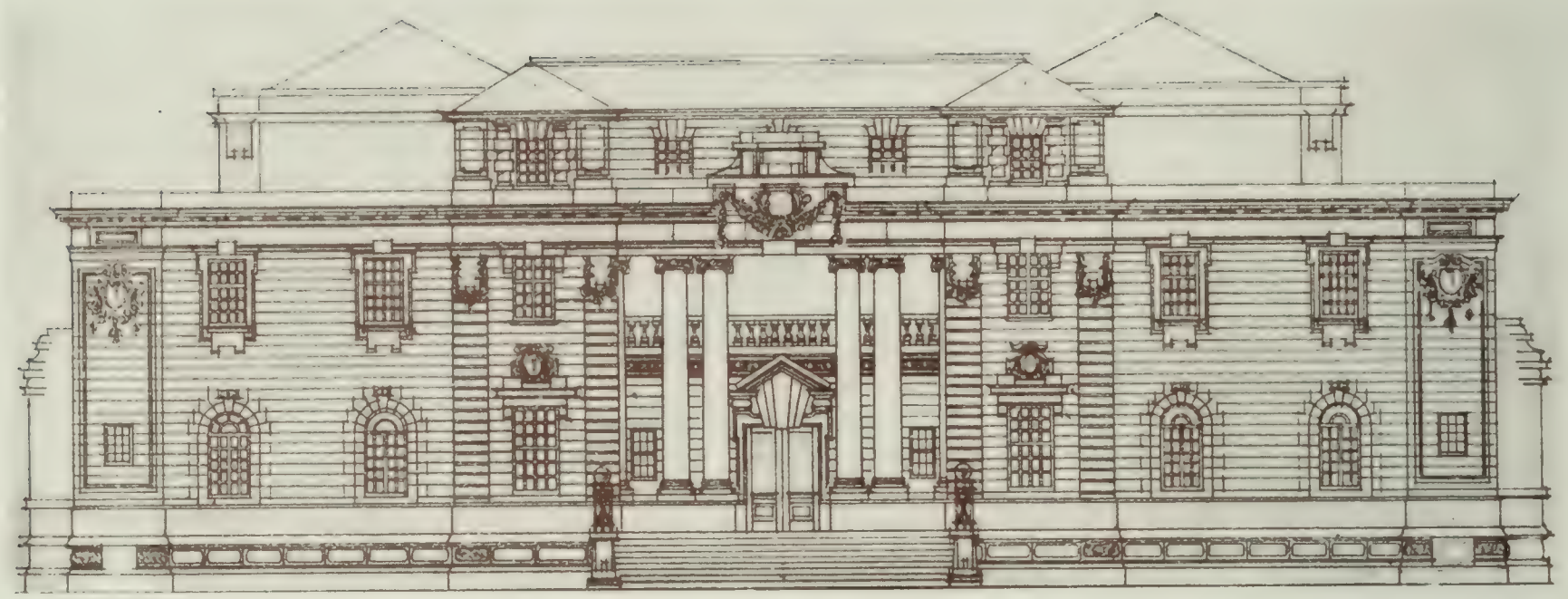
Masonic, Oddfellows', Sons of England, and similar lodges are established.

New Law Courts

A sum of £79,000 is being expended on the New Law Courts. The architect is Mr. Stanley Hudson, who designed the present Town Hall. The site chosen is fronting the esplanade, where the main entrance is situated. The other frontage will be in Masonic Grove where there is a second principal entrance. The dimensions of the building are 240 feet by 160 feet, and comprise two storeys—the exterior of which is to be treated with dressed brick and plaster. It will be a massive and decorative structure and compare well with any similar building throughout South Africa.


The Natal Mercury
The Natal Witness.
The Natal Advertiser
The Times of Natal
Newcastle Advertiser
AND NORTHERN POST
A. OLDKNOW & CO
De Afrikaner.
Ladysmith Gazette
Klip River News.
DANYSZ VIRUS
R.E. Harper & C
The Dundee and District Courier.
Natal Mercury Co.,
WEEKLY EDITION
MANNESMANN
Seamless Pipes
Irrigation Purposes
Cheapest to Buy.
Cheapest to Transport.
Cheapest to Lay.
Twice as strong as lap-welded pipes.
Greytown Gazette
The Latest
The Pictorial
Government Gazette
THE SOUTH AFRICAN RAILWAY MAGAZINE

"The Press"



New Law Courts

The town is well provided with recreation grounds. The elaborate park, on the shores of the bay, at the upper end of the Victoria Embankment, is well wooded and contains an excellent strip of ground, encircled by a cycle track and provided with a spacious pavilion.

There are besides the Victoria Park at the east end of the town, Mitchell Park at the junction of Innes Road and Florida Road, and Bulwer and Berea Parks. In the grounds of the Mitchell Park are confined a collection of animals which form the nucleus of an excellent Zoological gardens, which the Corporation is seeking to make one of the most interesting attractions of the town. Constant additions are being made to the collection of animals.

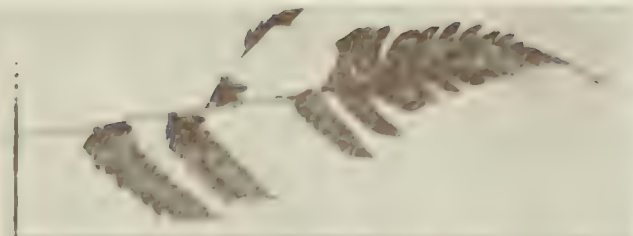
The race course on the Umgeni side of the town is well patronised by the devotees of the turf, and is also used as golf links, polo, and football grounds.

In proximity to the race course is Lord's ground. This fine sports' ground contains four football and cricket pitches, and possesses one of the best cycling ovals in South Africa. The grounds have recently been taken over by the Corporation, under whose ægis the athletic clubs of the town conduct frequent contests. Though not so beautiful from a spectacular point of view as the Albert Park oval, Lord's ground is now the popular sports' resort, the comfort of all the public being well catered for by a fine pavilion and grand stands, with a ring of seats round the entire oval.

Sport in all its branches is carefully nurtured in the town, and there are leagues formed in connection with cricket and football. The highest interests of these and other games are encouraged by the arranging of visits from the best teams in England as well as in Colonial contests. Tennis, golf, bowling, hockey, polo, and lacrosse, are all represented by clubs having their separate organisations.

In the preceding pages Durban's amenities as a town have been described, but the borough's premier claim to the patronage of visitors, particularly from the interior districts, is based upon its seaside attractions—and these attractions are of a decidedly novel nature.















1.—*The Oval*
2. *Entrance, Albert Park*
3. *Botanical Gardens*
4. *Albert Park*
5.—*Bulwer Park*
6.—*Mitchell Park*


Durban Sports

Yachting on Durban Bay.

















Durban Beach, North

SEASIDE ATTRACTIONS

In the year 1906 the Durban Town Council turned its attention to the possibilities of Durban as a seaside resort, and, with the energy and enterprise characteristic of that body, within the space of three years, transformed the dreary expanse of almost impassable sand into what is probably the finest stretch of beautified ocean frontage in South Africa. The tramway system has been extended to within a few feet of the ocean, and the foreshore on either side of this road has been artistically treated. On alighting from the tram it will be observed that the sandy hillocks extending towards the Bluff have been turfed, and pathways and carriage-way formed. This long strip of turf extending from the foothills of the beach ridge to the edge of the ocean, away from all the distractions of bands and bathers, appeals especially to those who love nature unadorned by man's inventions. On the other side of the main road a fine carriage drive and esplanade, practically on the edge of the high-water mark, have been constructed for a length of nearly half-a-mile, then joining by a circular sweep to the high level esplanade of similar length. All the intervening ground has been laid out in grass plots and ornamental gardens, interspersed with hardened footpaths leading to the band stand — where during the several yearly gala seasons (*i.e.*, five months out of the twelve) the best military bands procurable discourse sweet music. Children's safety paddling pools form a great feature of this area, with a fine fountain—erected originally in the



Fountain, Durban Beach



Durban Beach, South

Town Gardens in commemoration of Queen Victoria's Jubilee but re-erected on the beach when the gardens were utilised for the New Town Hall buildings.



Pier
Durban Beach

Several schemes have been submitted to the Corporation during past years for the erection of a promenade pier extending some 500 yards into the ocean. For one reason or another all these schemes failed to mature, but, thanks to the ingenuity of the borough engineer, a temporary promenade pier is now available. The safety-bathing enclosure is semi-circular in shape, and consists of piles driven into the ocean bed, interlaced with ironwork and steel pipes, thus forming an impregnable barrier to sharks. The top of this enclosure has now been boarded and railed off to form a delightful promenade 910 feet in length. This is probably the first semi-circular promenade pier constructed, and since its erection has formed one of the most attractive features of the beach—excellent fishing being obtainable from the ocean side, while from the nearer railing a charming vista is furnished by bathers in dainty costume disporting in the grand rollers of the Indian Ocean breaking on the beach. At night the bathing enclosure and pier are brilliantly illuminated, and during the warmer weather night bathing has been very popular. The dressing-room



Bathing Booths
Durban Beach







DURBAN BEACH



1.—Bandstand *2.—Promenade* *3.—Minstrels*
4.—Children's Paddling Ponds

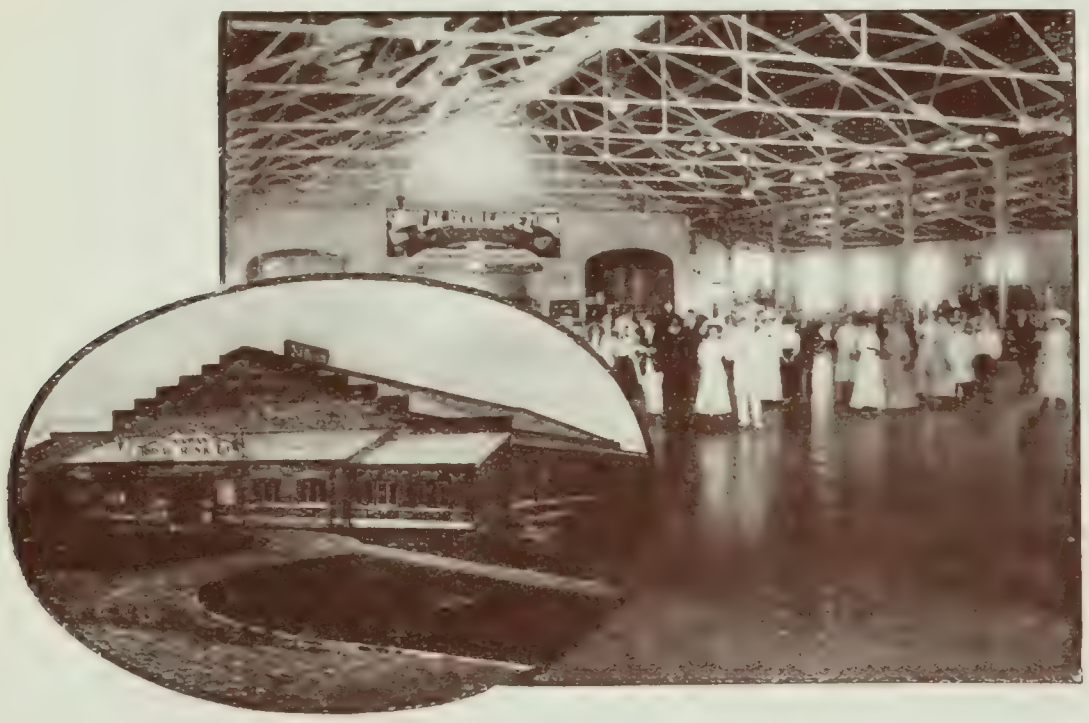
DURBAN BEACH

1. *Bathing Enclosure* 2.—*Promenade* 3.—*Pier* 4.—*Ladies' Bathing Enclosure*
5. *Entrance to Pier*

accommodation for bathers has received careful attention, and there are now three classes of booths with sufficient room for 1,000 bathers at one time.

Ocean Beach Rink

This rink which is situated on the ocean beach is probably considered one of the chief attractions by many of the visitors. Undoubtedly it is the most costly venture on the beach having been built as a permanent place of amusement, and the promoters are among the first optimists in regard to Durban's success as a holiday resort.



The ground occupied by the Durban Royal Rink, Ltd., is over an acre and a half, of which the rink itself occupies the major portion.

Pleasure Resorts

There are many attractive pleasure resorts within easy reach of the town, viz.: Umgeni and Clairmont (by road or rail), or the suburbs as far as Pinetown on the Main line; or Umkomaas on the South Coast line: and the Bluff (by ferry-boat or rail).

Commercial Durban

The commercial, industrial, and shipping interests are well-represented in Durban, amongst which may be mentioned:—The Eastern Telegraph and Submarine Cable, Lloyd's Agent and Surveyor, Reuter's Telegraph Company, Ltd.; Life and Insurance companies, Steamship companies, Coal companies, Landing and Shipping agencies, Stock Exchange, Natal Land and Colonisation Company; Sugar, Tea, Tobacco, and Coffee companies; The Standard Bank of South Africa, Natal Bank Ltd., Bank of Africa, National Bank, as well as a large number of mercantile and general business establishments. Important recent additions to the commercial interests of Durban include such firms as Messrs. Kynochs, Lever Bros., and Stewarts & Lloyds.



Durban Bay from Town Hall

Plan of Durban

A comprehensive plan of the borough, upon which is indicated the situation of the various places of interest, as well as the tram routes, will be found facing page 55.



Musbury, Durban Bluff.

Municipal History of Durban

The excellent Municipal History of Durban, which was compiled a few years ago by Mr. W. P. M. Henderson, the Assistant Town Clerk, contains a mass of information in regard to this important borough from its earliest days, and this volume may be profitably consulted for any further details.



West Street (Central)



Durban from the Berea

DESCRIPTION OF A ROUND TOUR FROM THE POINT TO THE CENTRAL RAILWAY STATION

Via Point Road, West Street (East), Bay Embankment, Albert Park and the Berea.

NOTE. This tour is given more particularly for the information of those whose sojourn in Durban is brief and who may before proceeding on their travels desire to obtain a passing glimpse of the many attractive features of the town.

The jinricksha might be employed as the means of locomotion for the first part of the excursion because of its novelty to the new-comer, and also that it enables a detour to be made at the post office, for the inspection of the Esplanade and the Albert Park. Omitting these two items, however, the electric tramcars would be found to traverse the whole circuit with greater celerity and comfort, and at a much cheaper rate. The route of the tour, as arranged, can be traced on the street plan of Durban.



Trams at Post Office



The Point from the Post Office

Having completed our inspection of the Point and its busy wharves, and strolled round Alexandra Square observing the bondage stores, shipping offices, and other establishments, the complement of a busy port, we stop to admire an ornamental drinking fountain, surmounted by a clock.

On the 8th July, 1497, four small vessels in charge of the Portuguese mariner, Vasco da Gama, set sail from the mouth of the Tagus, under a Royal mandate, to seek the land of Prester John and the King of Calicut. The commodore headed southwards, and shortly before reaching the Cape of Good Hope encountered such weather as seemed fully to justify its appellation of "Cape of Storms."

By the time Table Mountain was reached, however, the weather had greatly moderated, and the little squadron was enabled to double the Cape in safety. Proceeding along the coast the Bluff was passed on the 25th December, and the name *Natal* given to the fertile country in its neighbourhood, in memory of the day of good omen on which it was discovered. The fountain was erected at the Point in honour of the Portuguese Admiral, Vasco da Gama, who thus discovered Natal on that eventful Christmas day. In the vicinity of this memorial are the premises of the South African Railways, Harbour Department, Water Police, and Point Fire Station.

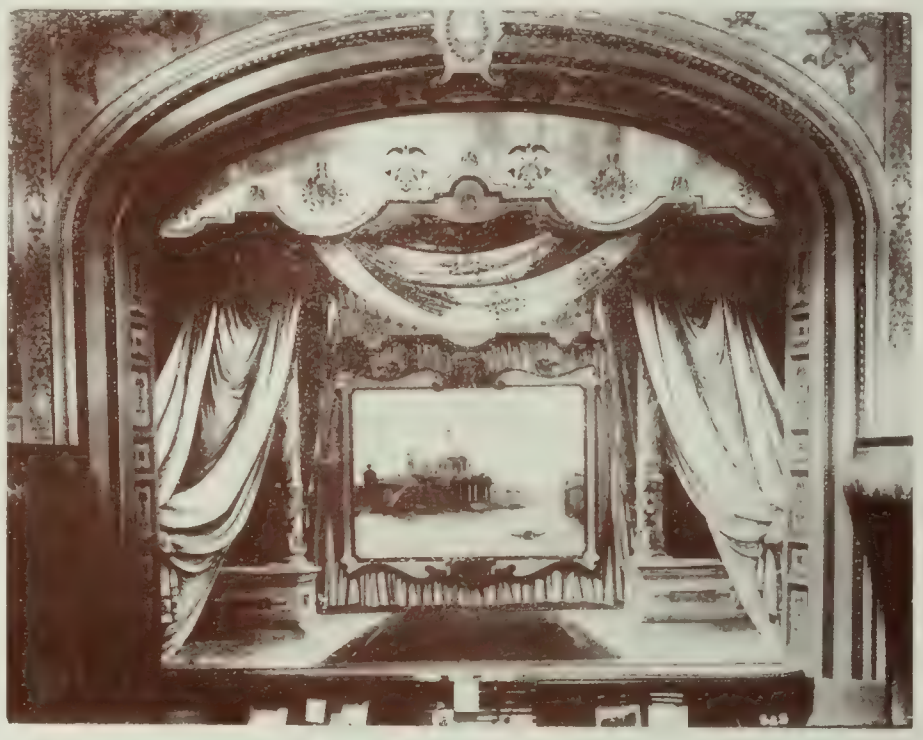
We are now on the tram route, and in the midst of a busy scene of traffic and commercial activity. Leaving the Point, by way of Addington - which is now merged in the town—a tram ride of about two miles lands the



Durban Municipal Buildings

traveller into the heart of Durban. The suburb of Addington possesses its own centres of attraction—a substantial masonic lodge, several churches, and many stores. On the left-hand side will be noted the coolie barracks, and a large government bond store, while on the right will be observed the government hospital, built on a ridge overlooking the sea. For some distance the railway runs parallel to the tram line until the junction of West Street is reached, at which point the tram road crosses the railway track. It is interesting to record that this section of railway mileage was the first to be constructed on the continent of Africa. The point where the tram and railway lines cross is West Street, the principal thoroughfare of the town. The short tram road to the right leads to the ocean beach, in the improvement of which the Town Council is spending a sum of £150,000—details in regard to which reference has already been made.

The tram journey from this point onward is full of interest, and proceeding for some distance by shops, cafés, hotels—leaving His Majesty's Theatre on the the left—the centre of the town is reached. Still keeping our gaze to the left, we observe the Waverley Hotel, following the same side, the next block consists of the magnificent municipal buildings opened by His Excellency Lord Methuen, Acting-Governor of Natal, in April, 1910. These handsome premises comprise three separate blocks, the first, fronting West Street, being the offices of the Municipal Department ; the next, containing the main hall (with seating capacity for 3,500 people) and smaller concert room, supper room, etc. ; and the third, fronting Smith Street, devoted to the municipal library, museum, and art gallery. The grand proportions of the building and the architectural features are most impressive, and form a fitting *hotel de ville* for a municipality which in so short a period has accomplished so much.



His Majesty's Theatre—Interior

Durban Museum

This Museum is now greatly improved with the enlarged accommodation provided in the new premises, which are situated on the first floor of the Town Hall, in Smith Street, immediately below the Art Gallery.

There are two spacious rooms—one of which is 96 x 72 feet, whilst the other is 73 feet square—and these two rooms are divided by a connecting hall, 69 x 31 feet, and a fumigating chamber ; in addition to which there are several smaller rooms which will be utilised for different branches of science, and a set of apartments below the basement for the curator and his staff.









1. *Museum Entrance Hall*
3. *The Council Chamber*

Durban Municipal Buildings—Interior

On the landing of the staircase will be seen a fine collection of bucks' heads and horns. In the large room will be found all the mammals, principally South African, including rhinoceroses, hippopotami, buffaloes, zebras, wildebeestes, lions, leopards, and many valuable South African antelopes, amongst which will be noticed the sable, roan, koodoo, water buck, pookoo, lechwe, impala, and many others; including a picturesque group of that rare and most beautiful of antelopes the "inyala," which are splendidly mounted.

The smaller room contains a very fine collection of South African birds of many rarities; hawks, eagles, and water fowl being conspicuous.

In the centre of this room are flat-cases containing a valuable collection of minerals, shells, fishes, and numerous specimens of interest, not omitting a real mummy of ancient history, dating back over 2,000 years.

The collection of South African mammals are being carefully grouped in glass cases of the latest design. The chief characteristics of the cases are their narrow steel frames, which enable the contents to be seen to the best advantage, and they are constructed so as to afford the greatest possible protection against dust, insects, and other deleterious factors.

In fact the museum is not only one of the principal attractions of Durban, but is also in itself an educational centre.



"The Wrestlers."—Durban Art Gallery

Art Gallery

The Art Gallery, which will be found on the third floor of the public buildings block in the municipal buildings, contains a number of valuable paintings, including canvases by such celebrated artists as Landseer, Herkomer, Van Prinsep, McWhirter, David Murray, Colin Hunter, Tennyson Cole, Clausen, A. C. Gow, and the late T. Sidney Cooper; statuettes by Hamo Thornycroft, R.A., and a fine sample of bronze reposse work.

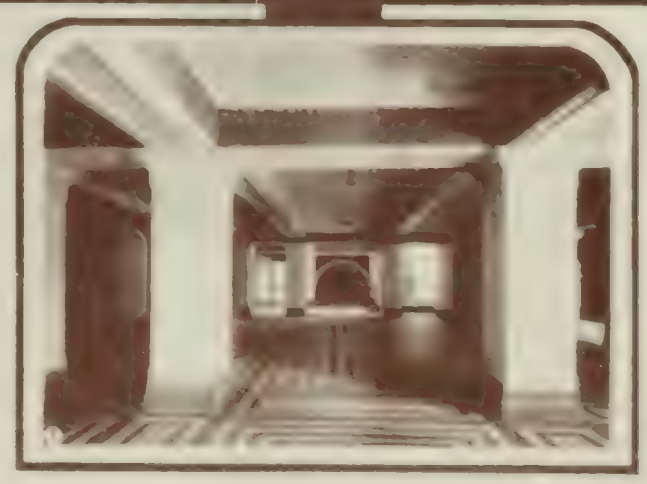












1.—*Five Circular Art Gallery*

2. *Entrance Hall, Grand Entrance Foyer*

3.—*No. 1 Rectangular Gallery*

Durban Municipal Buildings—Interior

Adjoining the Municipal Buildings are the Public Gardens, which have been sadly curtailed to find space for the new building. The small area remaining, however, has been tastefully set out, and constitutes the town's Valhalla of the memories of those who have served it in the Senate and in the field—for here will be found statues of Sir John Robinson (Natal's first Prime Minister), the Right Honourable Harry Escombe, P.C. (whose name is indelibly associated with Harbour Improvement Works), and a fine memorial to Durban's volunteers who fell during the recent Boer war.



Public Gardens, Durban

Immediately on the other side of the road a capacious militia drill hall, with its bold façade, arrests the eye. This is the inset between the stone-built regimental offices and the solid-looking three-storied police station.

There is a pleasant open space, ornamented by a grass plot and flowering plants, between this building and the salt water swimming baths, which are the property of the corporation. Keeping to the right the building formerly used as a public library and reading-room, and which has quite an interesting history, will be observed ; and on the opposite side of Church Street, which connects West Street and Pine Street, is the post office—originally Durban's Town Hall.

Post Office, Durban

DURBAN'S POST OFFICE

The old Town Hall building, which has recently been converted into an enlarged Post Office, is a Corinthian edifice, and was completed in 1885, at a cost of £50,000. The tower is 164 feet high, and contains a massive clock.

Information Bureau

Small in size, but immense in usefulness, is the little kiosk standing on the plot of ground in front of the post office at the corner of West and Gardiner streets. This information bureau has been placed in this central position specially for the convenience of visitors. Here they may purchase books of tram coupons (representing a saving of 25 per cent. on cash fares), they may use the public telephone call office, be supplied with programmes of the season's attractions, and obtain information of a varied order, such as the time of departure of the next tram to their hotels or particulars of the hour of sailing and passage rates of the next Union-Castle mail boat.



Information Bureau

In the centre of the ornamental gardens on the opposite side of West Street will be seen the encircled statue of the late Queen Victoria, sculptured in white marble by Hamo Thorneycroft.

We have now arrived at the busy pivot of the town. In front, West Street continues its course for over a mile until it merges into the Berea Road. The cross road is Gardiner Street, the right portion of which serves the Natal Bank (the elegant building at the corner), the post office, central railway station, and market hall; and the left leads to the Bay Embankment, crossing the second principal thoroughfare, Smith Street.



Bay Embankment, Durban

Continuing our tour down Gardiner Street, with the public gardens on the left-hand side, and quickly crossing Smith Street, glancing as we do so at the ornate Mutual Buildings, and the Royal Hotel—with its recently-equipped out-door restaurant—on the left-hand side, and the magnificent new Club Chambers with the Anglo-African House to the right, the Bay Embankment is soon reached.



Embankment from the Bay

There is something peculiarly fascinating in the view of the bay from

this point. To the left-hand is a fine elongated view of the busy wharves and the Bluff; immediately opposite is Salisbury Island, and to the right towards the head of the bay we espy Congella, with the timber ships alongside the wharf, and the suburbs of Umbilo and South Coast Junction calmly reposing upon the slopes of the surrounding hills.

Leaving the Marine Hotel on our left, we pursue our journey along the embankment, not failing to appreciate this substantial addition to the attractiveness of Durban. It is formed of a wide asphalted promenade, provided with seats and narrow grass plots—bordered with palms and trees—and a broad carriage drive, and is overlooked by becoming private residences and clubs. The embankment stretches in graceful curves for over 2,000 yards from end to end. Immediately after leaving Gardiner Street, along the embankment, we pass the Durban Club—one of the town's most exquisite buildings—and about 50 yards further on come to the Young Men's Christian Association buildings, and the Royal Natal Yacht Club, which are situated immediately opposite the jetty.



Durban Club



Y.M.C.A. Buildings, Durban

Taking a turn to the right we come almost immediately into Albert Park, which for natural beauty, situation, and compactness, constitutes one of the most charming grounds not only in South Africa but challenges comparision to places in other countries.

Cool avenues, curiously-formed banyan trees, giant palms, feathery ferns, and flowering shrubs, all contribute to the delight and charm of this attractive little park. In the centre, is the oval—upon which cricket and football is played—with its pavilion and grand stand. From either of these points of vantage on a fine summer afternoon,



Yachting Jetty, Durban Bay

watching the progress of a cricket match, the picture which meets the eye is one not easily forgotten. With the restful green in the foreground, dotted here and there by the white-flannelled players, and the gleaming bay through the trees in the distance, over which the yachts glide gracefully as the wind fills out their sails, it will at once be conceded that the town is more than fortunate in having such a lovely retreat to which the business man, tired with the week's toil, may retire for rest and contemplation.



Completing our drive or walk round the oval we leave by the main gate, passing along Park Street which leads to the Berea end of West Street. On reaching this point we see immediately opposite the commodious Theatre Royal, with its long balcony promenade, while some little distance to the right a glimpse can be obtained of the old cemetery—the new burial ground being at Stella Wood, situated at the extreme end of Umbilo Road. Further on is the brightest and busiest portion of West Street, and a walk down gives an excellent idea of the stability of the town, as reflected by its handsome well-stocked shops. Its cosmopolitanism is evidenced by the many representatives of different nationalities parading its streets.



Slipway, Durban Bay

At this point it is desirable to take a Marriott Road tram car to climb the Berea, in order to complete the circular journey and return to the Post Office. Immediately after leaving the Theatre Royal, the railway line is crossed by a bridge at Berea Road Station. On the left is seen the ornate red-brick government school, and the junction of the Umbilo Road is passed. Tramcar journeys may be made along the Umbilo Road as far as Congella and Umbilo, and these are very popular resorts; many picnic parties leave the car at the Congella stage and proceed to the beach, which is about ten minutes' walk. From the Umbilo the Berea rises abruptly, and on either hand are



Theatre Royal, Durban

evidences of the comfortable residences which line the road ; sheltered as they are by trees, and adorned by flowers and plants, it is suburbia indeed !

We quickly reach the corner of Botanic Garden Road (known as the Old Dutch Road stage), from whence access is obtained not only to these gardens but also to the observatory and laboratory. These will repay a visit, and the under-mentioned particulars may be useful to those who find time to see these interesting sights.



Botanic Gardens, Durban

The Natal Botanic Gardens, which terminate the road of that name, are open from sunrise to sunset all the year round, but on Sundays the conservatory is not accessible until two p.m. The gardens have been in existence for many years, and receive the full support of the Government. An important addition is the herbarium, which contains some 42,700 mounted specimens, and several

thousand unmounted ones, for distribution and exchange with other similar institutions. This herbarium was instituted by the present well-qualified director, Mr. J. Medley Wood, and a large building erected for its accommodation. One of the chief attractions of the gardens is the Jubilee Conservatory, or Palm House. Therein will be found many kinds of ferns and palms, the most dainty and the most gigantic. Many bewitching spots will be discovered in rambling round the gardens, and tempting seats espied under the shady trees. Some of the flower-beds emit the most delicious perfumes, while the oft-times quoted fallacy, that the land is without feathered song, will be refuted by the cheerful notes of birds in a perfect forest of trees, a few of which, the visitor will observe, have been imported from foreign lands.

On leaving the gardens a steep road will be seen running to a higher level of the Berea. This road leads to the Government Observatory and Laboratories. The Observatory, which is situate 260 feet above the sea, has been in existence since 1882. It is in two hours, four minutes, 1·18 seconds, East longitude, from Greenwich, and in 29 degrees, 50 hours, 47 seconds, South latitude. The time kept all over South Africa is Durban Observatory mean time, which is two hours in advance of Greenwich time. The main instruments are : an eight-inch equatorial refractor, by Grubb, with the usual accessories ; and a three-inch transit instrument by Troughton and Simms.

The Mean Time clock, by Victor Kullberg, automatically distributes the time signals every hour by means of the chronograph. The hourly signals go to the Post Office, Durban ; the Port Captain's office ; and the Bluff signal station. The time ball is dropped automatically at one o'clock every day. The post office clock is also controlled by the observatory mean time clock.

The observatory is important because Durban is the last port which vessels leaving for Australia, and other East African ports, can rate their chronometers. Mauritius is the only place at which a time service exists between here and India.

Meteorological observations are regularly taken at the observatory, and scattered at regular intervals throughout the colony are subsidiary stations controlled by the observatory.

Leaving the observatory by way of Currie Road, and walking a few yards along St. Thomas's Road, Musgrave Road—named after one of the popular Lieutenant-Governors of the colony, Mr. Anthony Musgrave—is reached. Further up, and at right angles to the Musgrave Road, along which the tram passes, is Ridge Road, which traverses practically the highest site of the



Musgrave Road, Durban

Berea, and in the distance somewhat to the left can be seen the Toll Gate and Sydenham districts. In order to continue our tour, however, the tramcar must be again boarded at the crossing of the Musgrave and St. Thomas's Roads, and soon we are pursuing our journey along the main road of the Berea towards what is known as the "horseshoe curve" and Florida Road. From the top of the car some idea may be formed of the natural beauty of this fashionable thoroughfare, with elegant villas set back some distance from the road dotted along in almost a regular procession. The ever-changing scene townwards, baywards, and seawards—from our vantage point on the tram—is not easily forgotten, and makes possibly the finest and most complete bird's-eye view of Durban. An added dignity is given to Musgrave Road by its churches and scholastic buildings. Marriott Road is crossed at right angles, and this point represents the meeting-place



Florida Road, Durban

Trams on Musgrave Road

Berea



of the cars as they circle the Berea and town. Travelling onwards, Mitchell Park—named after Sir Charles Mitchell—is quickly reached, near which King's House, the marine residence of the Natal Administrator, will be seen.



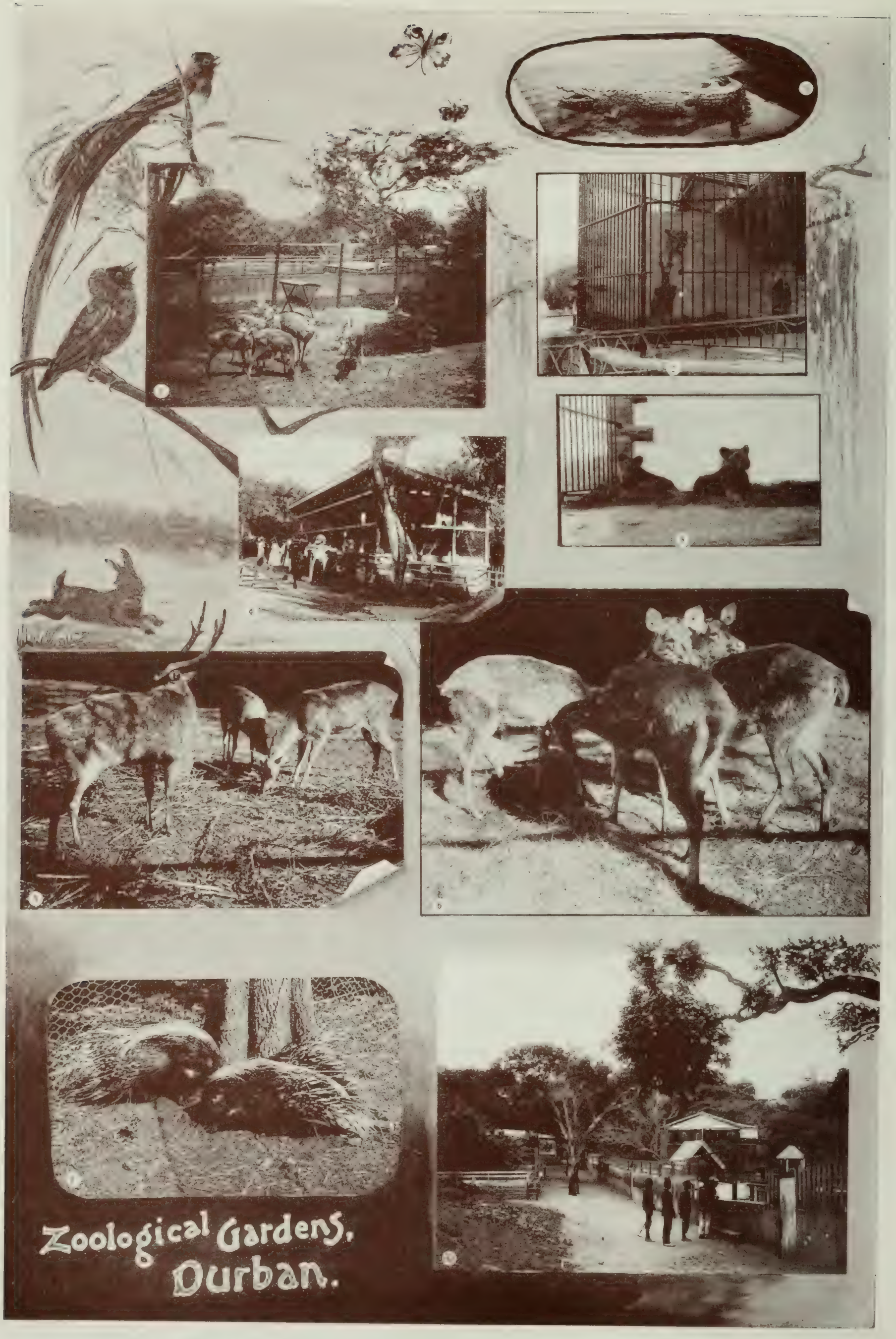
King's House, Berea, Durban

Durban Zoological Gardens

One of the prettiest parts of the Berea—situated well on the ridge and at the foot of King's House—is Mitchell Park. In it the Corporation has a good collection of zoological specimens, which are well worth a visit. In the year 1902 Lady Binns presented the Corporation with a few Mauritius deer (*Java rusa*), and these with a few spotted deer (*Axis*), etc., presented by Mr. Ernest Acutt, C.M.G., formed the origin of the present collection. For years, however, the Zoo was left to itself to grow spasmodically by the aid of a few presents from burgesses and farmers. In 1908 the Council through the instrumentality of Councillor C. R. Bishop, a well-known zoologist, appointed an energetic committee, and from that year the garden began to take shape.

To-day the visitor may find there a splendid lion house, a beautiful aviary, and a fine well-filled monkey-house; paddocks are being erected on a new plan, which have been laid out with a good deal of taste, so that in a very short time Durban will have added another to its many attractions.

Among the animals to be seen are black wildebeestes, hartebeestes, dromedaries, nylgaies, antelopes of great variety, vultures, emus, and other animals. The Corporation having taken the matter up in earnest, have voted the sum of £10,000 as a first instalment to improve the collection, which give an added interest to the town. The committee are most anxious to have first and foremost a complete collection of South African animals, as many of these will soon be extinct, if the various Provincial governments do not put a stop to indiscriminate slaughter. The gardens have already become a great source of attraction to visitors and burgesses alike, and it may be assumed the Council will continue to adopt a liberal policy in regard to this distinctly educational



1. *Four-Horned Deer*
2. *Exterior of Lion House*
3.—*Interior* " "
4.—*Monkey House*
5.—*Spotted Deer*
6.—*Java Rusa*
7.—*Porcupines*
8.—*The Avenue*
9.—*Crocodile Pond*

undertaking. The park itself, being well-wooded, and under complete sanitary arrangements, is eminently suited for the purpose of a zoo, and it is also a favourite resort for picnic parties and visitors, the tea room being a great convenience.



Horseshoe Curve, Berea, Durban

Rounding the horseshoe curve we enter Florida Road and descend townwards. In some respects the journey from this point onwards is not so charming as the earlier stages, but it is full of interest. The town, the bay, and the ocean, for a part of the journey, lie at our feet. At the bottom of the hill the Florida Road tramway joins the Stamford Hill line, and a glimpse is caught of the racecourse and golf links. On the left is Lord's ground, the arena for all the principal sporting contests.

We are now approaching the end of our circular tour, with Railway Street in front of us and the central station again coming into view. To the left, on the other side of the broad Prince Edward Street railway bridge, is the old Military cemetery. This sacred spot contains the dust of many brave men, both soldiers and pioneers, who perished in the early struggles with the Dutch. The cemetery which contains numerous old monuments of great interest is well worth a visit. On arrival at the railway station our tour is ended, and it is questionable whether a more interesting and beautiful tramway trip can be afforded by any town or city in the southern portion of the African continent.



Old Military Cemetery, Durban

Entering the large and commodious Central Station we find a scene of bustle and excitement. Porters laden with luggage hurrying up and down the platforms, the busy officials, the crowd of people bidding farewell to their friends—all denote that the train is waiting to convey us on our journey through the principal towns and battlefields of Natal.



Offices of the South African Railways. Durban



DURBAN TO PIETERMARITZBURG

CHAPTER V



IF the monuments of the middle ages are grey abbeys, castles and cathedrals, the monuments of to-day seem likely to be of a different kind. History would appear to be repeating itself. The most enduring memorials of the Roman age in Britain are the wonderful roads of earth and stone which are to be yet traced over field and moor throughout the length of the land. It will not be strange if the enduring memorials of to-day in South Africa will be the roads of stone and steel, with their earthen embankments and rock cuttings, which run for long distances over the vast sub-continent. These things are the same with a difference: the Roman roads were measured from the golden milestone of Augustus in the Capitol; the railways of South Africa run from Johannesburg as their centre, and not the least of the main artery lines of the continent is that which takes the traveller from Durban to the "Golden City." Having made arrangements with the courteous officials we find a comfortable apartment awaiting us, and in quick time we are well under steam and slowly drawing away from the Natal railway terminus. Passing the Electric Power Station on the right we are soon travelling on through the West end suburb.

BEREA ROAD STATION. — This depôt is full of life as a result of the Indian and Native traffic, who quickly tumble into the carriages over tin pots, bundles, boots, calabashes,

Altitude	15 feet.
Distance	2 miles.



Berea Road Station



Congella Wharf

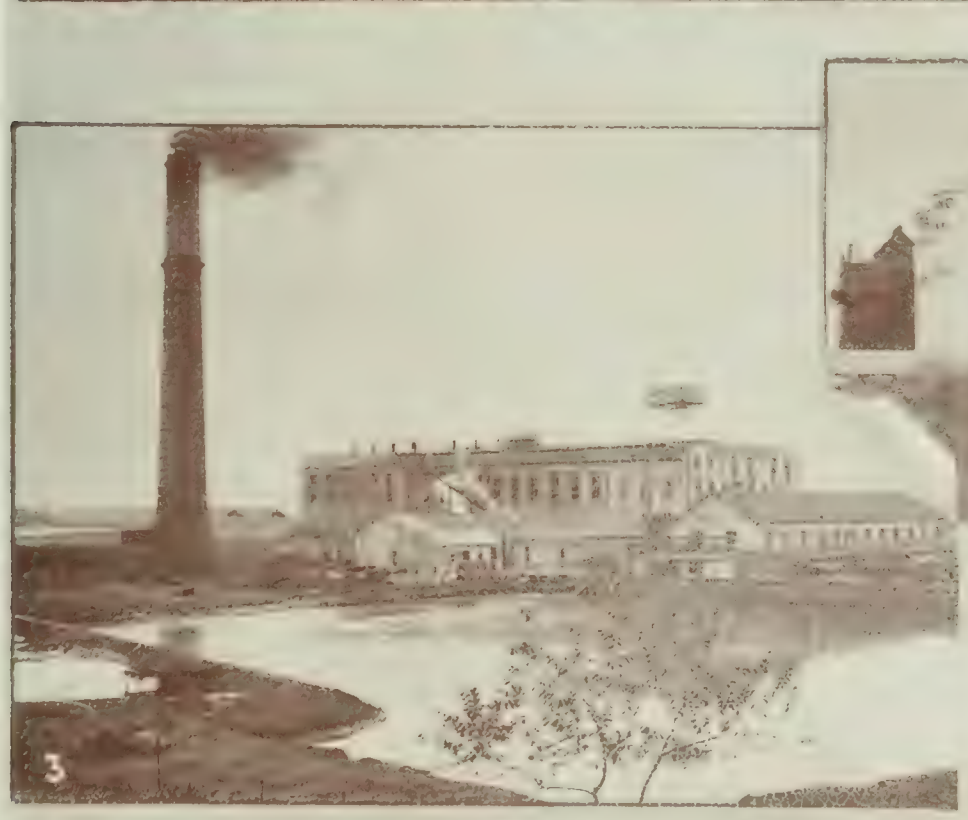
fruit baskets, and other articles of impedimenta. The Theatre Royal the more important of the two Durban theatres, is within one minute's walk of this station. The stop here is a brief one and the train again moves on, passing the evidences of the town and harbour's progressiveness and activity. On the right may be caught a glimpse of the Government Girls' Model and Infant schools. As we proceed further, and looking to right and left, we notice huge tracts of land bearing signs of recent reclamation. This is the "Congella scheme," which forms a part of a comprehensive plan for the improvement and development of the inner harbour. In all about 94 acres of swamp behind the wharf have been reclaimed, a wharf 1,750 feet in length constructed, ship channels dredged—being 25 feet low water ordinary spring tide—and the navigable area of the bay enormously enlarged. Vessels of great tonnage and draft are now able to discharge their cargoes at Congella and merchants afforded every facility for sorting and storing their large timber and other consignments. Already the whole of the available shed and land space has been taken up, and Government is being asked for authority for further land reclamation.

It is interesting to record that most of the traffic for Kynoch's Explosive Works, at Umbogintwini, is discharged from ship and put on rail at this depôt. On the left we skirt the arm of the bay, and on the right hand side the southern end of the Bluff is seen sloping away in the background.

CONGELLA.—Prior to the development of the Ocean Beach at Durban, Congella was quite a favourite watering-place, being particularly popular for children owing to its safety as a paddling and bathing place. A few years ago Congella was also a favourite residental suburb. Should the Durban Town

Altitude	10 feet.
Distance	3 miles.









1.—*Congella Railway Station*
2.—*Umbilo River Bridge*
3.—*Sugar Refinery, South Coast Junction*
4.—*Milling Co.'s Works*
5.—*Brewery*

Council extend the Esplanade thus far this suburb will acquire an enhanced value, and when the Government decides to continue the harbour extension works in the direction of Umbilo, Congella will become a centre of great importance. Fishing, boating, and picnic parties are well-catered for, and as the railway station is adjoining the beach it is a very convenient objective for such holiday makers. Salt is manufactured here from sea water, and lime-burning and boat building are the chief industries. There can be little doubt that with its natural attractiveness, and the added convenience of a good hotel, Congella could well be developed as a health resort. Historically, Congella is famed as the scene of the first battle with the Dutch for supremacy in Natal, for it was at this spot, on the 23rd May, 1842, that the British lost nearly half their men in a midnight attack on the Boer emigrants, resulting in Richard King's memorable ride to the Cape Colony for reinforcements. Every colonial boy has ingrained in his heart the incident of this hero's daring ride through tempest, jungle, and flood, spurred bravely on by the knowledge of his countrymen's perilous situation. Such interesting records in the history of Natal can only be briefly indicated in a book of this nature, but authors such as Russell, Theale, Brooks, and Cana, have exhaustively treated in a fitting manner such historical happenings and events.



Photo by Traffords

Umhlatuzan River

UMBILO.—Leaving Congella behind, fresh beauties of bay and bush meet the eye, and in brief space we reach Umbilo, at which point the fruit-producing portion of the country may be said to commence. Crossing the bridge under which the river which gives its name to the station sleepily flows and, looking to the right, the establishment of the South African Breweries will be seen. Other industries include meal mills and fertilizer works. From Umbilo the platform of the next station

Altitude	27 feet.
Distance	4 miles.

SOUTH COAST JUNCTION—about half-a-mile in front—may be seen, and it is an indication of the contour of the country that from this point it would seem as if our further progress would be impeded by the hills rising up before us. This is the point at which the Main and South Coast lines converge and, as a natural consequence, the train service through this interesting suburb is excellent. The district is important from an industrial point of view—having in its vicinity one of the chief sugar refineries in Natal and a chemical manure mill ; while pipes, reinforced concrete, and matches, are all manufactured in the district. Nor should it be overlooked that the Salvation Army, with its beneficent enterprise, has laid out a social farm which is doing splendid work. Two well-metalled roads pass the Junction

Altitude	33 feet.
Distance	5 miles.

and are much favoured by cyclists, equestrians, and travellers. Although the village does not boast of an hotel there is a refreshment room at the station. The moral and intellectual side of South Coast Junction life has not been neglected, and in addition to the two churches there is an active literary association which, through the enterprise of its members, has now acquired an excellent lecture hall. It is from this point, in continuing our journey in a northerly direction, that we note for the first time the rugged nature of the country and the steep grades and sharp curves so characteristic of the Natal railways, with which we shall become more familiar as the journey proceeds.

With commendable enterprise the Government has for some years been spending large sums of money on improving the line by reducing these grades.





1.—Deep Cutting at Sea View *2.—Train passing through Fruit Farms near Bellair*
3.—Road Bridge, Sea View

and the section of the line over which we are now travelling is a deviation made to reduce the heavy climb—known as "Jacob's Ladder"—from a 1 in 30 to a 1 in 50 grade. Travelling over the Natal lines, if not speedy, is not without its compensations in so far as the traveller is rewarded for his toilsome ascents by the delightful vistas which meet his gaze when the summits along his journey are reached. Such a reward for the tedium of the somewhat slow climb is obtained when the train reaches Sea View, and the traveller obtains a panoramic outlook of the Bay, Durban, Addington, the Bluff, and the outer anchorage.

SEA VIEW is becoming increasingly popular as a Durban suburb. The charm lies in its pretty undulations, bracing air, and its close proximity to the town. Private residences are springing up in all directions, and a suburban population is firmly established with social and other acquirements of much older communities. Perhaps the chief point of interest in the district to the tourist will be the Hindoo Temple, which is built in the valley of the Umhlatuzan River. Pursuing his journey the traveller is struck by the diligence of the Indians in their cultivation of all kinds of summer fruits, such as pineapples, bananas, mangoes, pawpaws; and in the winter—oranges, naartjes, lemons, and avocada pears.

Altitude	175 feet.
Distance	6 miles.



Sea View

BELLAIR is another attractive and prosperous-looking suburb, claiming a population of over 350 Europeans and 450 coloured. This is perhaps the most fashionable of the Durban suburbs, and is a very healthy residential resort. During the past generation the price of land has increased enormously, and to-day the district for a considerable area is dotted with superior dwellings enclosed in extensive grounds. There are two chapels and a church, hotel and "hydro.," rifle association, political and sporting clubs, literary and debating societies, and a concert and volunteer drill hall. There is also a match factory in the district. The sub-tropical scenery in and around this district is undeniably beautiful. The soil is rich and prolific and especially favourable to fruit culture; exotics of all kinds also flourish. Leaving the by no means inartistic station at Bellair our train proceeds leisurely to HILLARY, situated in the midst of fruit plantations.

Altitude	223 feet.
Distance	7 miles.



1.—Bellair *2.—Congregational Church, Bellair*
3.—Railway Station, Bellair (despatching Fruit)

MALVERN for natural beauty surpasses Bellair and most of the other suburban districts. The locality has many charms, offers a wide prospect, is over 550 feet above sea level, and from a residential point of view has no hindrances in the way of factories in the district. The train service is convenient and the price of season tickets reasonable. Many of the residents interest themselves in fruit and flower culture, bee getting, and poultry farming. There is an hotel opposite the station, and good boarding houses in the district. The Government have erected a school here, and, under the auspices of the Free churches,

Altitude -	- 558 feet.
Distance -	- 10 miles.









Malvern

1.—Field of Pineapples *2.—Despatching Fruit* *3.—Fruit Farms* *4.—Railway Station*

there is the Ethelbert Home and Orphanage. The Anglicans, Wesleyans, and Roman Catholics are all represented in this happy community; and in connection with sport there are tennis, cricket, and football clubs, as well as Sons of England and Ambulance societies. The population is approximately 700 Europeans and 1,300 coloured persons. There is a resident doctor, two general stores, and a branch Court is held fortnightly. Botanical and kindred students will also find much material for their fascinating researches in the district. It is also a favourite resort for picnic parties. Continuing the upward trend of our journey we enjoy on the one side an exquisite view of both sea and landscape, and on the other an expanse of broad hills, kloofs, and valleys, until at length, after passing BOWKERS, we sight

NORTHDENE, a healthy, quiet, fruit-producing place, prettily environed.

Altitude	796 feet.
Distance	13 miles.

SARNIA, formerly known as Pinetown Bridge, is the next station, where a stay of a few minutes is made by certain trains for water. On the right is seen the historical Cowie's Hill, and looking back from the train may be seen the Sarnia brick, tile, pipe, and pottery works, one of the most important industries of its kind in South Africa. Across the line is the site of the Princess Christian military hospital, which, through the generosity of Mr. Alfred Moseley, C.M.G., of London, rendered such

Altitude	945 feet.
Distance	16 miles.



Fruit Farms near Malvern

useful service during the late Boer War. A commodious hotel and sanatorium has now been erected, and Sarnia will, it is hoped, some day blossom out as an invigorating health resort. There are many charming places in this district; a great favourite for picnic parties is that which goes by the name of "The Water Works"—where prior to the fatal flood of 1905 there existed two large reservoirs contributing to the supply of Durban, but these, bursting their confines, have passed away. The place of the former reservoirs is situated some two miles away. The place is still full of delightful surprises and will always be a charming resort for holiday seekers.



Sarnia

PINETOWN.—It may be safely assumed that the boundary for the established suburban residences is reached at Pinetown, and when it is taken into consideration that, although only 17 miles from Durban, the Pinetown district is 1,100 feet above sea level some idea of its enjoyable climate may be formed. The population varies little, being within the region of 300 and 350; the usual churches, Government schools, library, and public hall, with their attendant societies and clubs are to be found here, and this in addition to the recently enlarged Imperial Hotel and complement of boarding houses constitute the village. Situated a few miles to the east is the farming settlement of New Germany. During the brief wait at this station, where a suburban coach may be detached from the train, we mark by his singularity of garb—a coarse gown, broad black scapular, and leathern girdle—the thoughtful figure of a monk. His presence at the station reminds us of the Trappist Monastery at Mariannhill, about three miles from the station, which is one of the greatest missionary institutions in South Africa for the material education and moral development of the native. Behind this institution as it is made known to the visitor to Natal—is a very interesting story, and one which is worth a passing reference. About 30 years ago, at the request of the late Bishop Richards, Port Elizabeth, the Chapter of the Order of the Trappists, then sitting in Paris, decided to make an experiment and send a number of its members out of the four walls of the Cloister and engage them in Native Mission work in South Africa. The first body of Trappists came in 1880 to Dunbrody, near Port Elizabeth, where they found on the edge of the dry Karoo a not very congenial field for their labours, and in the early days

Altitude	1125 feet.
Distance	17 miles.

of 1883 they settled down in Natal, and were hospitably received by the Bishop of the district, the Right Reverend Charles Jolivet. A start was made with about three dozen missionaries, none of whom knew either English or Zulu. Mission work was practically begun in 1885, and the first of the stations "Reichenau," 120 miles distant from Natal, at the foot of the Drakensberg, was founded in November, 1886. Since then the 36 missionaries have increased to 62 missionary fathers, 32 students, and 245 lay brothers. The Mission Sisters number about 340. The number of coloured people maintained and educated is 2,622. The founder and first Abbot of Mariannhill was Father Frank Pfanner, who very soon got a number of devoted women together and founded what are known to-day as the Mariannhill Mission Sisters. This congregation numbers about 400 members. The Mission Sisters are at present engaged in native mission work on all the Trappist stations in the Vicariate in Natal, and they are also labouring in Rhodesia and Mashonaland. Besides the immense amount of needlework done at Mariannhill, about four or five sisters devote themselves all the year round to the making of beautifully-designed vestments embroidered in gold, silver, and silk, and a good deal of outside work is undertaken by this department. To give a solid foundation to their mission work the Trappists considered it necessary to have large tracts of land of their own in order to settle the new christian couples coming forth from their schools and retain the needful influence over them for as long a period as possible. Hundreds of christian homes are set up in this way, and Mariannhill alone has to-day some 120 christian families. In Natal the Trappists own about 45,000 acres. Twenty-six stations are now dependent on Mariannhill; 16 in Natal, six in East Griqualand, one in Mashonaland, and three in German East Africa. The schools under the administration of the Trappists are mostly boarding schools. Provision is made for all ages, and they receive the native from the time he is born until he marries and sets up a home of his own. In connection with several training schools there is a crèche, and at Mariannhill the sisters have at the present time about 50 of these little darkies under their care. The school curriculum is in accordance with the government regulations for native schools. After having been at school for a maximum period of six years, those boys working at a trade, and who wish to become more efficient, are drafted into one of the many shops under the management of the Trappists, and under the training of the brothers, the natives become quite useful adjuncts to the labour market. A similar arrangement is made for the girls, who are under the care of the sisters of the nunnery. The shops in the monastery at Mariannhill employ something like 250 workers and lay brothers, which includes carpenters, joiners, wagon builders, coopers, wood turners, blacksmiths, farriers, locksmiths, engineers, fitters, tinsmiths and coppersmiths, bricklayers, masons, stonecutters, painters, shoemakers, millers, bakers, compositors, bookbinders, gardeners, nurserymen, photographers, and tailors. At Mariannhill also there is what is called the "technical bureau," presided over by Brother Nivaard—one of the ablest of engineers and the most genial of men. Here the plans and specifications of all the important works at the various stations are prepared. The Trappists are vegetarians, and therefore extensive vegetable-gardens are cultivated employing a large number of boys. There are something like 250 girls in



Mariannhill Monastery

the Sisters Convent, who are principally engaged in house, needle, garden, and field work. The work of the girls consists of cooking, washing, and ironing, and all sorts of needlework, and many of them are well able to cut out their own dresses, work in the vegetable gardens and on the fields. As a rule the girls change their work every month, so that all may have a chance to go through the whole routine. A great number of sewing machines are humming in the large workroom, also two knitting machines, and nine girls are at present being taught lace-making, real point and bobbin lace. It evokes unbounded admiration, especially from lady visitors, to see these black girls handle with their clever fingers hundreds of bobbins, amidst a forest of brass pins. At present the lacework is mostly used for church vestments, but when more girls have been trained, they will be able to increase supplies and fulfil long-standing orders. Straw-plaiting is also taught by the sisters to the younger children, and all the straw hats worn by them are made on the premises. In the common palm leaves they have an inexhaustible supply of good material. The sisters also keep about a dozen milch cows in the stables, besides a piggery and a very large fowl yard. One must not forget to mention that the sisters have their own shoemakers ; three sisters, and as many girls, do all they can to prevent the convent being "down at heel." The work in the large vineyard is for the most part performed by the sisters, and the brothers look to the pressing of the wine and its management in the cellars.

Most of the monks and nuns are of German extraction and are wedded to silence. Amongst this community are many men and women of great learning and culture in art, science, and industries. The monastic day commences at

two o'clock in the morning and closes at seven in the evening. The institution is largely supported by European and American charities, although the products of its hands and its industries contribute greatly towards defraying expenses. Thousands of people from all parts of the world have journeyed thither, and it is questionable whether any ever forget the hospitable way in which they are welcomed, or the instruction which such a visit conveys to the mind and heart.

To those who may, or may not, have an opportunity of visiting the monastery, the following description may be of interest :

"*ORA ET LABORA*"

"Seeking the fluctuating course of the rutted road that branches to the left from the main highway, and passing, perhaps, a few solitary Kafirs, who will stop aside and bare their heads in salutation, you will reach, after travelling some four or five miles, a sinuous hollow in which you will see a number of long, narrow buildings arranged in the form of a compact little town, and dominated by a tower. Take the pathway descending to the right, and you will come to the vine-mantled residence of the porter. Follow the lead of this kind-faced amiable monk (who is deputed to dispense the goodly hospitality and favours of the fathers), and you will be conducted through the humble workshops of the skilful tonsured artificers and their sable apprentices, all solemnly intent upon their business. A wonderful peace pervades each shop and room, and, at the sight of the little crucifix hanging on the wall, you will instinctively uncover, and, perhaps, lingering a little while to watch the silent earnestness of the toilers, pass quietly away. It may be sentiment, but there is an impressive difference between these industrial hives and those of the noisy world. The works and buildings of the tanners, saddlers, and shoemakers ; blacksmiths, tinsmiths, and wagon-builders ; bakers, tailors, watchmakers, carpenters, joiners, schoolmasters, and photographers, you will notice are in the main portion of the settlement. The premises of the millers, printers, bookbinders, lithographers, and typefounders are gathered some distance away beyond the convent. As you pass thither you will observe some of the brethren working among the vegetable gardens, vineries, and fruit plantations, while others will be descried toiling in the distant fields. A little further on, you will observe the monastic cemetery, where, under a tall and exuberant tree, repose the remains of the former Abbot, surrounded by the graves of the sisters and monks whose earthly missions now are ended, pathetically marked by wooden crosses, hung with wreaths of leaves. Passing onward you will reach the convent, and as you proceed through the quiet, immaculately clean, well-ordered apartments, and watch the nimble, delicate fingers of the embroiderers and basket-makers, the busy hands working in the kitchen, wash-house, and laundry, and the sisters teaching in the various schools, you will be filled with unstinted admiration. Native girls are trained by the nuns in all the numerous feminine arts and services, and prove most apt and obedient pupils. Nor must you omit the visitation of the churches. Throughout each hour of the day, and in the still darkness of the unawakened morn, the gentle sisters and the bearded monks may be seen passing to their holy avocations, or noiselessly—save for the sound of their sandalled feet—returning with bended heads to the unfinished labour of their hands. If convenience permit, the dormitories and refectory should also be visited. Probably, at the end of your tour, the sun will have dropped behind the western hills, and you will be making ready to hurry on the lonely road into the larger world. When you come to the outskirts of this holy town, turn and listen for a moment, and you may hear, quivering upon the cool and sympathetic air, the sound of the deep-toned bell summoning the silence-wedded monks to their evening prayers."

After leaving Pinetown another long ascent—namely, FIELD'S HILL—has to be negotiated, but in proportion to the difficulty of mastering the steep gradients the grandeur of the scenery below is made manifest. The prospect is pleasing and invigorating. Passing the charmingly-



Palmiet Falls

natural PALMIET FALLS we proceed towards

WYEBANK, where

Altitude	1536 feet.
Distance	20 miles.

another magnificent scene bursts almost immediately into view. Our tortuous journey is continued to a higher altitude, from which we shortly witness the rugged grandeur of the scenery in the vicinity of

KRANTZ KLOOF.

Altitude	1808 feet.
Distance	23 miles.

From the altitude of this station, with the aid of the telescope, ships can be discerned passing along the coast, while the tract of country extending to the shore can be distinctly defined. The attraction of the kloofs in this vicinity is supreme, and they must be visited before an adequate conception of their grandeur can be formed. Owing, doubtless, to the delightful bracing climate an excellent Convalescent Home has been built in the neighbourhood.



Field's Hill



The Gorge Krantz Kloof

GILLITTS is situated in the midst of pastoral and agricultural land, with here and there a few plantations of black wattle and lanky eucalyptus. Passing EMBERTON HALT

Altitude	1969 feet.
Distance	25 miles.



Hill Crest Station

HILL CREST, Durban's fashionable Summer suburb is reached. This is a place which has developed very rapidly and, owing to the salubriousness of its climate, is drawing an increasing

Altitude - -	2225 feet.
Distance - -	28 miles.



Bothas Hill Railway Cutting



Wattle Plantation



"Valley of a Thousand Hills"

number of permanent residents. During the summer season every house in the district is occupied. The drives and walks are pleasant and the roads fairly good. A feature of the landscape is the immense area of land under wattle cultivation. In clear weather the Inanda Hills and the sea are plainly visible. Passing sinuously onwards the track becomes increasingly tortuous, for the traveller is approaching a vantage point from which some of the most rugged and grandest scenery in the colony may be witnessed. Having skirted the side of a high cliff on the one hand, and a deep declivity on the other, penetrating through rock cuttings, the train merges into the open, from which position, on the right hand, may be observed the immense "VALLEY OF A THOUSAND HILLS." There are few finer sights in South Africa than this scene, with the train 2,200 feet above sea level, and the immense green roller-topped hills extending to the horizon. As we proceed this wonderful scene broadens and deepens until

BOTHAS HILL is reached. Most likely a number of Kaffirs will detrain. There

Altitude - - 2425 feet.
Distance - - 32 miles.

are many kraals within a few miles of this station and a visit to any one of them would offer to the tourist opportunities of studying native life under natural and most favourable conditions.

Passing ALVERSTONE HALT, and continuing our journey through wild and broken country, DRUMMOND, with its bracing climate and hilly picturesqueness, is soon reached. The Traffic Hotel is nearly 500 yards from the station.

INCHANGA, although nearer to Maritzburg than to Durban, is regarded as the

Altitude - - 2064 feet.
Distance - - 39 miles.

half-way house, and with many of the trains a wait is allowed here of 20 minutes for refreshments. The chief charms of the Inchanga district are its invigorating climate and scenic beauties. It is to be regretted that the hotel built by the late refreshment contractor to the railway department, and which was equipped in quite an up-to-date style, is at present closed to the public. It is built on an excellent site, and being within easy distance of either Durban or Maritzburg was very popular in holiday seasons.

INCHANGA TO MARITZBURG

Having refreshed ourselves we resume the journey from Inchanga, quickly passing, on the right-hand side, the railway department nursery, from which plants, shrubs, and young trees, are distributed to all parts of the railway line. On the left it will be observed that a large number of trees have been planted, giving quite a pleasing outlook.

HARRISON.—At this place fishing and shooting may be enjoyed, and interesting

Altitude - - 2425 feet.
Distance - - 42 miles.

trips made to TABLE MOUNTAIN, which is about six miles from the station. Maize for export is being cultivated in increasing acreage round this district.









Umlaas Falls

CATO RIDGE.—At Cato Ridge a number of sidings will be observed leading off from the main line, this being one of the important depôts for re-adjusting the loads of trains—necessary owing to the varying grades of the Natal main line. The district is important from an agricultural point of view, and in addition it has many scenic charms. Away to the right in the distance will again be seen the "VALLEY OF A THOUSAND HILLS," with TABLE MOUNTAIN forming a conspicuous centre-piece. The land below, and to the right, is part of a large native location. Some six miles away are the Umlaas Water Falls, about 100 feet high, and which, owing to their formation, are said to be the prettiest falls in Natal. This district is peculiarly attractive to collectors of moths and butterflies, and to those who have the courage to explore the more rugged parts of the country the scenery presents many interesting charms. From this point up to THORNVILLE, which is the junction for the RICHMOND BRANCH, the finest maize grown in the world is cultivated. For this reason land is readily taken up should any go into the market; in addition to maize—potatoes, pumpkins, and other vegetables are largely grown. The land is wonderfully fertile, and yields more per acre per annum than in any other part of the colony. Dairy farming is also successfully pursued.

Altitude . . 2470 feet.
Distance . . 45 miles.



Cato Ridge Station

CAMPERDOWN.—Leaving Cato Ridge we may still enjoy—looking towards the east—the magnificent expanse of bold rugged country, indeed, the view from Camperdown station is one of the finest outlooks along this line. Camperdown is a favourite resort for Durban people during the warmer months of the year, and has the advantage of a comfortably-appointed brick-built hotel. Interesting excursions may be made in the district, and eight miles away, in a pretty situation, will be found the largest body of fresh water in Natal—the new dam constructed for Durban's water supply. The lake is two miles long, and at some points is over 800 yards wide.

Altitude . . 2497 feet.
Distance . . 48 miles.

UMLAAS ROAD.—From this coign of vantage we are afforded a grand prospect of the mountain range in the distance.

Altitude . . 2606 feet.
Distance . . 51 miles.



Umlaas River

1.—The Drift 2.—Umlaas Valley 3.—Looking toward the Durban Waterworks
4.—The Rapid 5.—Above the Falls



Camperdown



Haymaking and Loading-up at Station









1.—Mid-Illovo Light Railway
2.—Water Tank
3.—Umlaas Road Station
4.—Train leaving Umlaas Road Station

MID-ILLOVO RAILWAY.—This is a 2-ft. gauge railway starting from the main line at Umlaas Road, and terminating within a mile of Mid-Illovo central post office, hotel and store; the length of the line being 26½ miles. The line traverses some of the finest agricultural land in Natal, and induced by the prospect of having a railway, the farmers have recently greatly increased their operations so that there is now a very large area under maize and wattle cultivation, which latter appear to do very well, especially on the high lands. Tobacco has also been grown in the Umkwahumbi valley for many years with considerable success. The Mid-Illovo district is a very healthy one, and throughout the year the residents seem to find time for a vast amount of recreation in the shape of tennis, gymhkanas, flower shows, dances, &c. The Mid-Illovo Central Hotel is situated on one of the highest points in the district, about 2,600 feet above sea level, and commands a magnificent view of the rugged scenery of the Illovo and Umkwahumbi valleys. The line is nearly completed, and should be open for traffic towards the end of the year.

MANDERSTON.—This is an important maize and wattle bark district, and it also offers to the tourist a three-mile-walk to Umtimbamkulu, from which hill on a clear day the Bluff lighthouse at Durban may be seen.

Altitude	2863 feet.
Distance	55 miles.

THORNVILLE JUNCTION has the distinction of having the highest altitude of any station between Durban and the Capital, being 3,006 feet above sea level, consequently the district is a very bracing one. As already stated it forms the junction with the RICHMOND

Altitude	3006 feet.
Distance	60 miles.

BRANCH. The district is noted for good farming; hay, maize, and root crops are largely grown and dairying extensively carried on. The Railway Hotel is immediately opposite the station, and offers excellent accommodation to travellers. A convenient morning and afternoon service of trains is arranged between Richmond and Maritzburg, making a connection at the latter station with the trains from the uplands, and at the junction with those from the coast.

FOX HILL.—This surburban territory is within seven miles of Pietermaritzburg. Away to the east our rugged guide, Table Mountain, can still be seen, and from this point also we catch the first glimpse of the Capital, nestling in its sleepy hollow, and protected on the far side by the massive Zwaartkop Hills. With occasional interruptions we keep the city in sight and reach BISLEY, which corresponds with the Home Bisley. Here in competitions the marksmen of the Militia, which embraces all sections of the volunteer and reserve forces, meet. Not only do members of the Militia assemble here, but competitions are also held at Bisley which are open to members of all rifle associations in South Africa.

Altitude	2810 feet.
Distance	64 miles.



Maize cultivation at Umlaas Road



Umlaas Falls

PENTRICH.—As we continue our journey we secure a larger panoramic vista of the Capital. Fort Napier is detected on the left, embracing quite a little town in itself, with the city below. The pretty station of Pentrich, the advance outpost of the city, is quickly gained. This suburb of Pietermaritzburg is a favourite resort for picnic parties, affording as it does shady plantations and open grounds for sports. Leaving the station as the train passes Mason's Mill on the left we run alongside the Natal-Cape Line and over the bridge which spans the main road to Bulwer and the Umsindusi River. We proceed again and travel through a landscape of much beauty and of many charming residences.

Altitude	2153 feet.
Distance	68 miles.

A little further on we pass the inner border line of the town, and observe standing in an extenive park on our right a handsome red brick edifice. This is one of the foremost colleges in Natal. On the left will again be noticed the new line which runs from Maritzburg to the border of the Cape Colony.

Now we enter once more the halls of civilisation as it were, for our course is bounded by well-built clean-looking houses; and after negotiating another gradient and proceeding cautiously—noticing on the right the glass-fringed walls of the gaol, and on the left the Garrison Church—we steam into the second largest station on the line, and alight at the historic capital of the colony, PIETERMARITZBURG.





"Natal Bisley."





THE CITY OF PIETERMARITZBURG

Altitude — 2218 feet
Distance — 71 miles

CHAPTER VI



THE capital of the Province was laid out in the year 1839 by the Dutch voortrekkers from the Cape, and was named from two of their leaders, Pieter Retief and Gert Maritz. The sturdy pioneers had suffered much since they had brought their wagons down the passes of the Berg into "the meadow of Natal."

From the "Story of a South African City" (J. F. Ingram) we gather that the Settlement of Maritzburg consisted of six small hovels and many wagons and tents; that in the beginning of 1839 a Volksraad, or Council of the people, was elected, and that on the 15th of February of the same year, the town was officially named Pietermaritzburg. The natives name it "Umgungunhlovu," from the ancient seat of Government of the Zulus on the White Umfolosi River.

Such, then, was the founding of the capital of Natal.

MARITZBURG, as it is usually called, enjoys an altitude of 2,218 feet above the sea level. It lies in a leafy hollow, and is commanded by hills on every side. Two small but pretty rivers, the Umsindusi and Dorp Spruit, embrace the town and are strongly bridged.

LEGISLATIVE LIBRARY



Opening of Town Hall, Pietermaritzburg, by T.R.H. The Duke and Duchess of York, 1901

The formation is purely Dutch—rectangular, with right-angled streets running from end to end. The city is about two miles long and one mile broad, and contains nearly 30 miles of streets. The total area of the borough, including town lands, comprises about 45 square miles.

The estimated population is 28,000 ; comprising Europeans, Natives, Indians, and other coloured races.

The municipality is divided into eight wards, and its affairs are administered by a mayor and fifteen councillors. Its representation in the Union Parliament is two members. The rateable amount of the borough properties for the year 1909-10 amounted to £3,329,770. The General Rate was $3\frac{3}{8}$d., and the Water Rate $\frac{1}{4}$d. in the £. The municipal revenue for the year ending 31st July, 1909, was £320,881 (including a loan of £200,000), and the expenditure £169,523 (including Capital expenditure £36,069, Loan redemption £23,000). Assets, £1,928,397 ; liabilities, £1,207,514.

The streets in the city are mostly all macadamised, and the footpaths in the main thoroughfares well paved with concrete flags. A feature of the residential streets is that they are lined with trees which afford welcome shade, besides forming cool and leafy drives.

The city is lighted with electricity, which undertaking is in the hands of the municipality. From the Power Station at the north-west end there radiates to the city and suburbs a complete network of underground and overhead cables, ensuring an ample supply of current for public and private lighting.

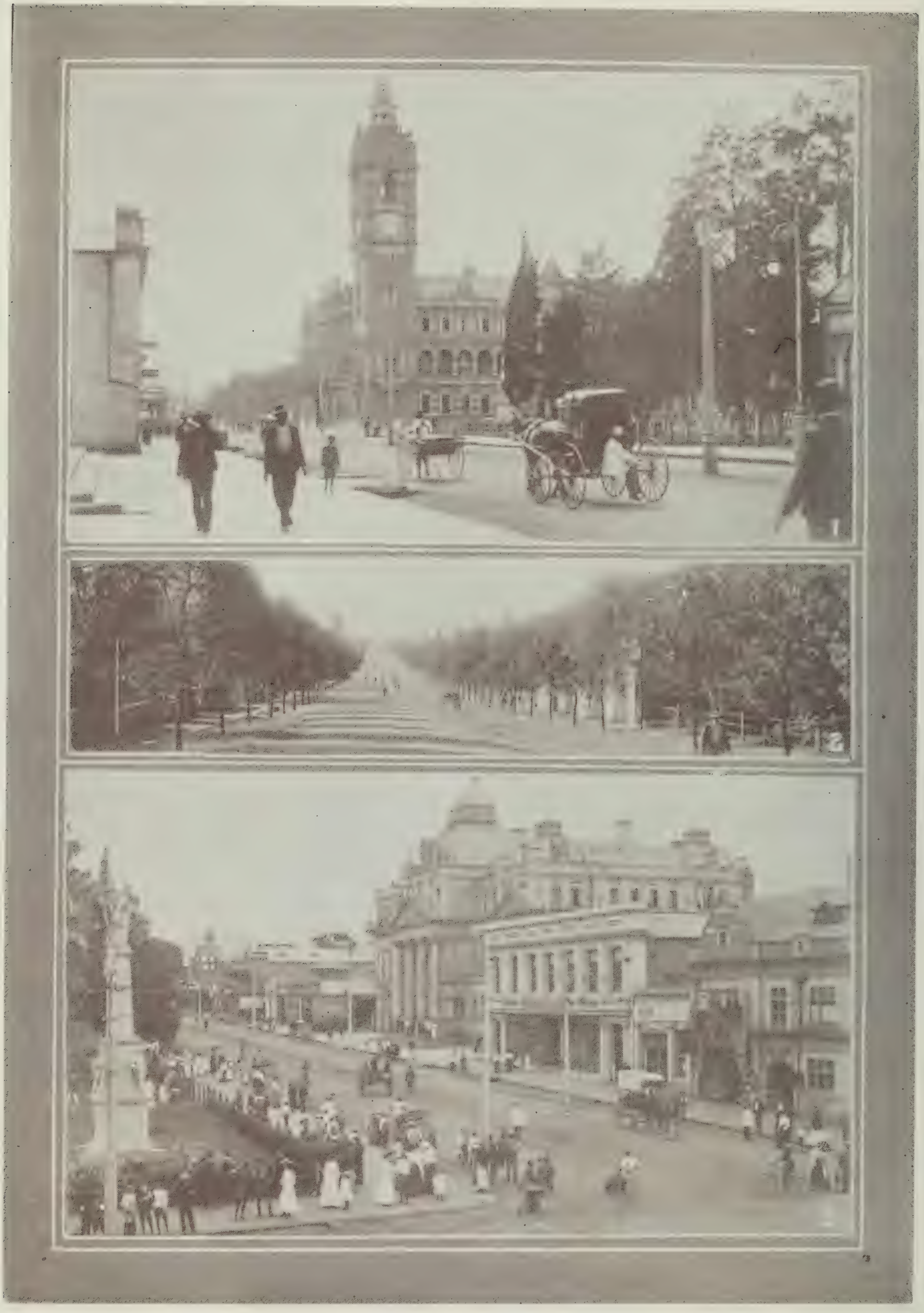
An electric tramway system has been laid down and is run by the



Municipal Buildings, Pietermaritzburg

1.—Church Street 2.—Interior of Main Hall

municipality. The cars traverse the two principal streets, Church Street and Commercial Road. From the Town Hall, which is situated in the centre of the city, at the intersection of Church Street and Commercial Road, the cars proceed to the railway station and thence to the Botanical Gardens, this route serving the residents in the suburbs of Prestbury, Mayor's Walk and Zwaartkop Valley. Residents at Scottsville, and on the Town Hill, are well provided for, and the route to Scottsville takes in the racecourse and the new golf links. A



Pietermaritzburg

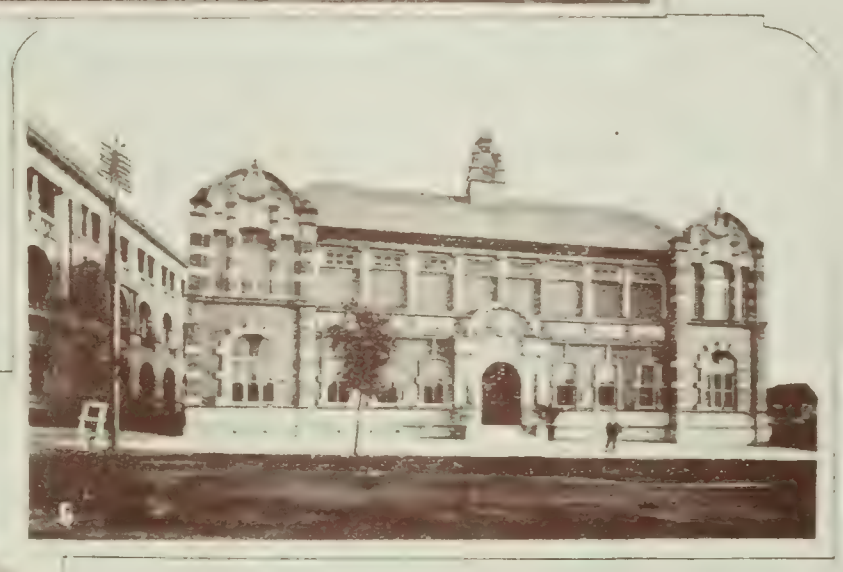
1.—Central Church Street 2.—Loop Street 3.—Colonial Office Buildings and Zulu War Memorial













Public Buildings, Pietermaritzburg

1.—Post Office
2.—The College
3.—Railway Offices
4.—Supreme Court
5.—Natal Museum
6.—Government Asylum

branch line also runs into the park, and this is found to be a great convenience to those attending the various sports held there. For the convenience of visitors and others an excursion car is run daily over the whole route, which enables them to have a pleasant trip for an hour or two, with stops for refreshments at the Botanical Gardens and Alexandra Park.

The water is of good quality, and an ample supply has been provided at considerable cost. The daily consumption is about 2,000,000 gallons but 3,000,000 gallons per diem can be delivered to the city, if necessary.

The sanitary arrangements are efficiently carried out. A section of a water carriage sewerage system has been built, and a further portion of the work dealing with Government buildings will be put in hand immediately.

According to the last report of the Medical Officer of Health for the borough, the European birth rate is 29·78 and the death rate 9·11 per thousand.

There is a well-disciplined (European and Coloured) Town Police Force, also a permanent Fire Brigade, assisted by auxiliaries, fully equipped with steam fire engine, horsed escape, and all necessary modern appliances.

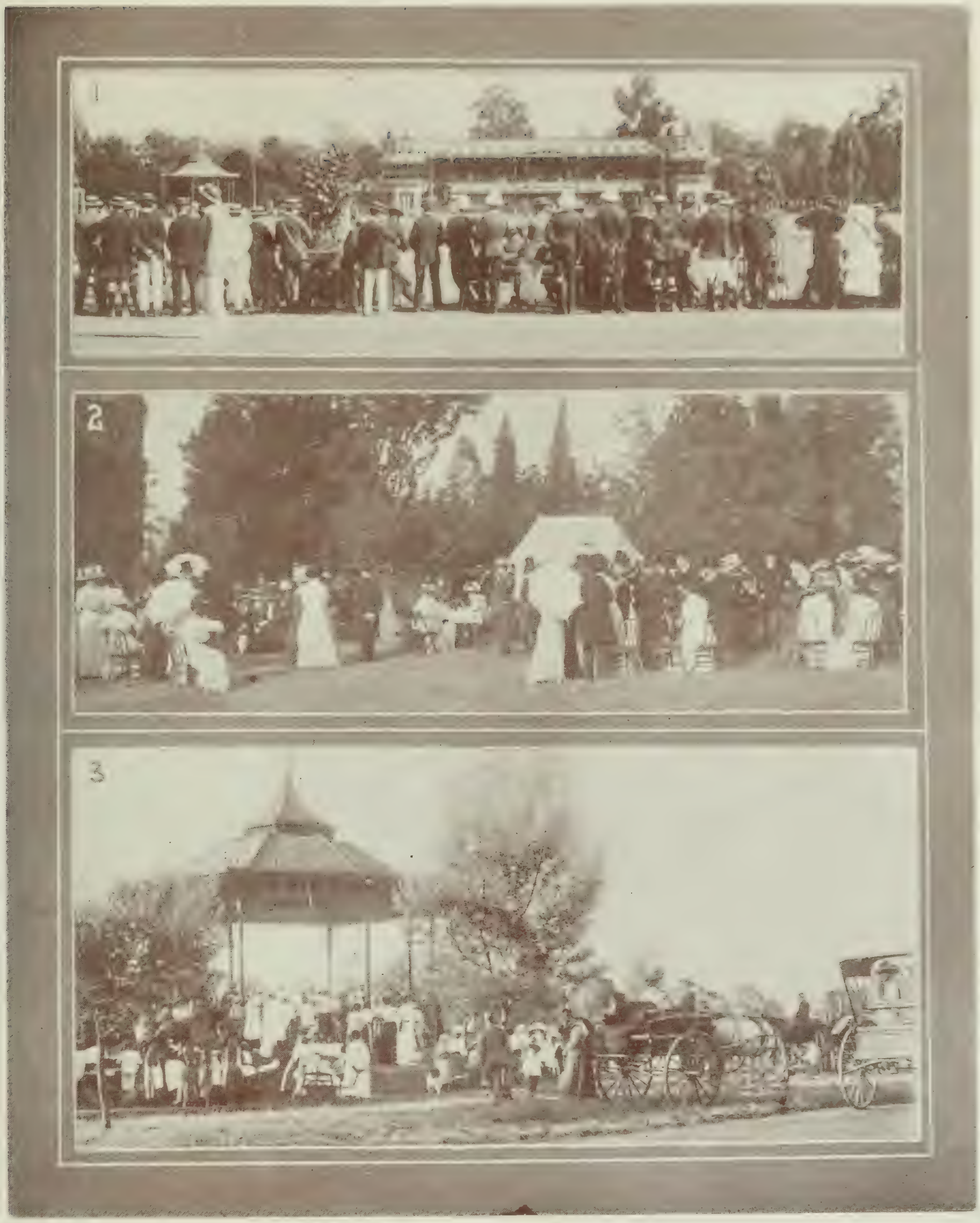
There are a large number of public buildings, some of which are of pretentious proportions and excellent design, notably the Town Hall, a handsome brick structure of three storeys flanked by an imposing tower, which contains a clock and set of chimes. The main hall, in which all the important concerts, etc., take place, is capable of accommodating over 2,000 persons, is of exquisite design, and contains a magnificent 4-manual organ with 84 stops. The Post Office, Provincial Council, and Colonial Office buildings, would do credit to an English city, being large and imposing structures faced with freestone. Amongst many other capacious and attractive buildings may be mentioned Government House, Maritzburg College, Railway offices, Museum, Police Barracks, Asylum, Drill Hall, Central Railway Station, Supreme Court, Victoria Club, Police Station, Market Hall, Library and Reading Room, Masonic Hall, Theatre, and several Banks.

One of the primal attractions of the city is the salubrious climate, which is said to be especially favourable to incipient bronchial ailments.

Of the inner places of resort, the following are the principal:

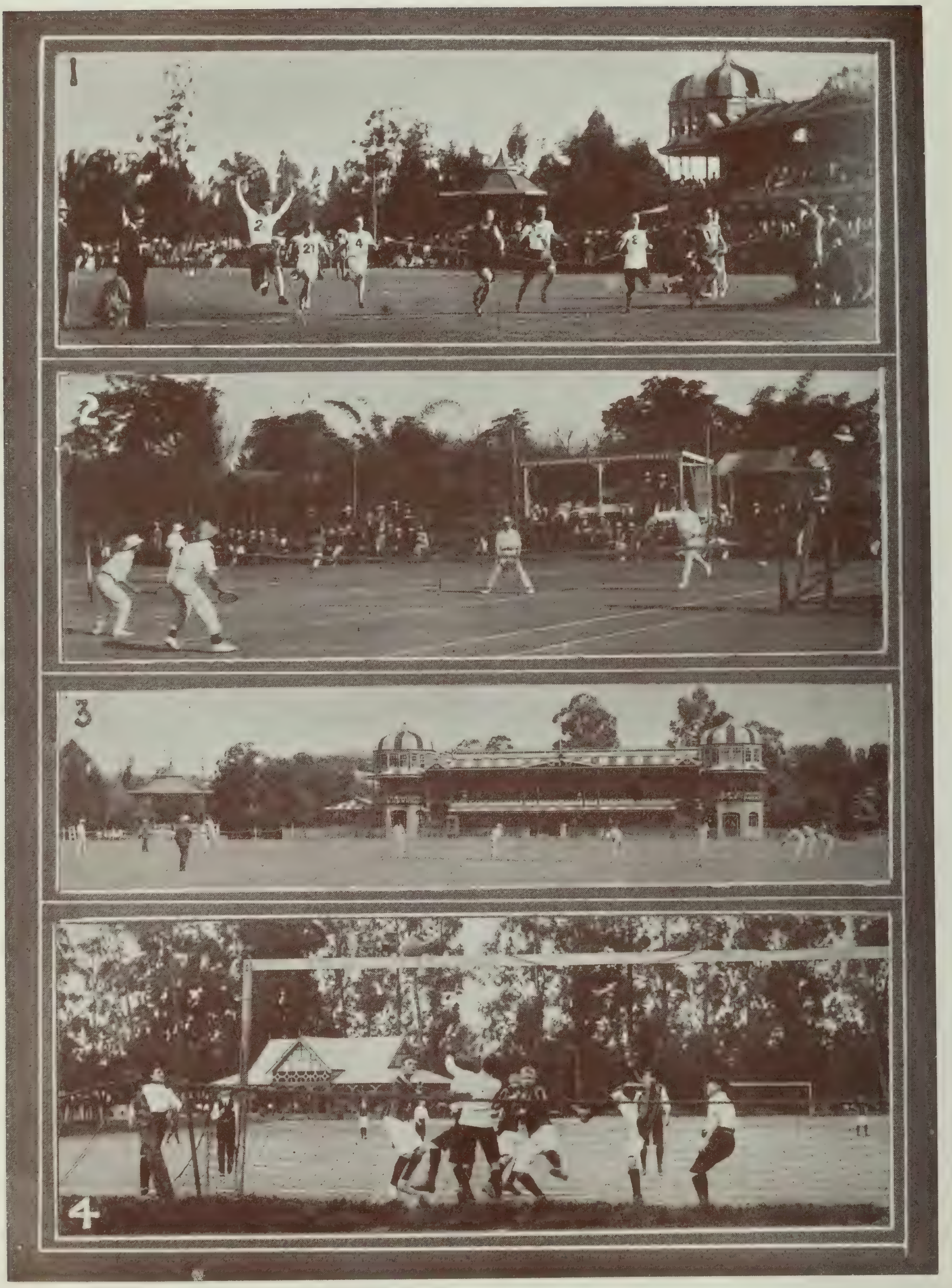
The Alexandra Park

A beautiful well-timbered ground, comprising some 180 acres, situated on the right bank of the Umsindusi River, to which access can be gained from several directions. It possesses a large oval, cycling track, pavilion, and band-stand, football and cricket grounds, welcome avenues and arbours, and a fine conservatory.



Alexandra Park, Pietermaritzburg

1.—Queen Victoria Diamond Jubilee Pavilion. 2.—Mayor's Garden Party. 3. Bandstand



1.—Sports in the Park

2.—The City Tennis Courts

3.—Cricket in the Park

4.—The Junior Sports Ground in the Park

The Botanical Gardens

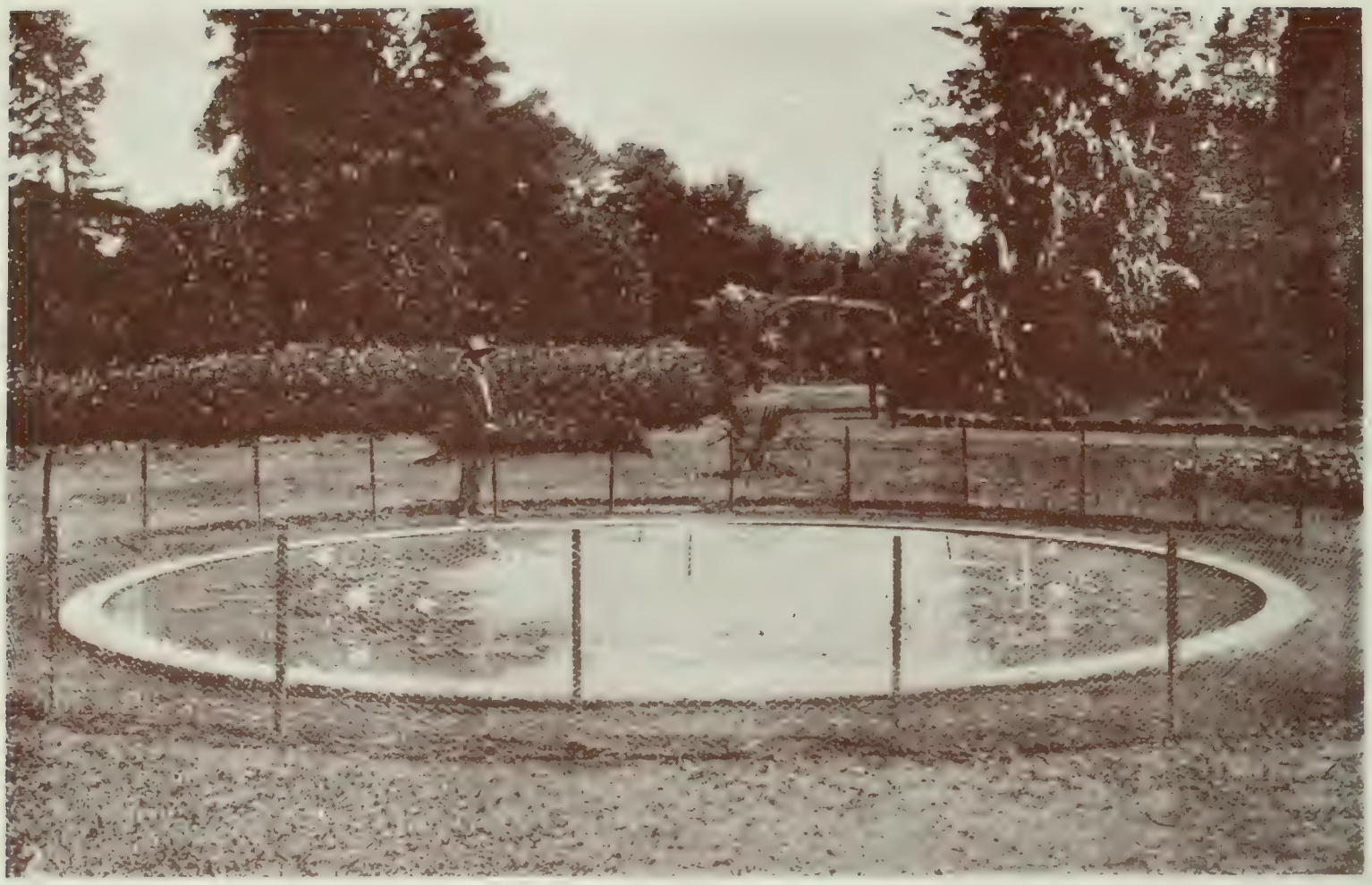
The gardens lie on the west side of the city and are a good sample of their kind, they are tastefully laid out and present a kaleidoscopic jumble of flower beds bright with endless varieties of colour. They afford lovely walks and are of an attractive appearance at all seasons of the year.

Boating on the Umsindusi River

Within the last year or so a great attraction has been provided by the Corporation improving the Umsindusi River. The beauties of the river cannot be exaggerated. In summer, when the graceful willows are in foliage, it is hardly possible to find a more delightful way of spending a day than to take a boat and proceed leisurely up the river. The willows overhang the water and in places form natural arches, under which one's boat glides shaded from the burning sun. A boating club has been formed, and under its auspices regattas are held annually.



1.—Memorial to Queen Victoria *2.—Monument to Sir Theophilus Shepstone*
3.—Langalibalele Rebellion Memorial



Botanical Gardens, Pietermaritzburg
The Lily Tank

Golf Course

An 18-hole golf course has recently been laid out at Scottsville, which is likely to prove second to none in South Africa. It is proposed to hold championship meetings from time to time, thereby making the city a centre of attraction for golfers throughout South Africa.

The outer spots of enjoyment are: Table Mountain—the most fascinating rendezvous for picnickers, photographers and scientists—the Town Bush and Chase Valleys, where nature has been most bountiful with her waterfalls and sweet woodland gifts: and the various holiday centres, each within easy reach of the city, namely, Camperdown, Edendale, Zwaartkop, Sweetwaters, Hilton Road, Howick, and Albert Falls. These are described in their appropriate places.

The following handsome monuments, the handiwork of eminent sculptors, adorn the city. A white marble statue of the late Queen Victoria, a statue of Sir Theophilus Shepstone, two striking monuments, one commemorating the brave who fell in the Zulu War of 1879, and the other—a column—erected in remembrance of the volunteers who died in suppressing the Langalibalele Kafir Rebellion in 1873. The lobby of the Provincial Council buildings contains the bust of the late Sir Henry Binns, as well as two tablets, one erected to his memory, and the other to that of the late Right Honourable Harry Escombe, both of whom acted as premiers to the late colony.

In the vestibule of the Town Hall is a large choicely-designed tablet, unveiled by Her Majesty the Queen (then H.R.H. the Duchess of Cornwall and York) in remembrance of the Natal Volunteers who lost their lives in the Boer War; and, fittingly enough, opposite this tablet has been placed the bust of that able and prescient statesman, the late Sir Edward Bartle Frere.

In the various churches will be seen many tablets in honour of those beloved and worthy pioneers and citizens who have joined the great majority.

Another monument has recently been erected in the Gardens opposite the Town Hall commemorating the Boer War: a bronze figure of an angel sheathing his sword, mounted on a lofty marble pedestal with bronze panels in bas relief.

Societies, Institutions, Clubs

There are many and sundry institutions applied to the advancement of commerce, agriculture, horticulture, learning, music, law, botany, photography, moral and physical development, angling, shooting, sociability, thrift, etc. There are also a number of benevolent organisations; while Grey's Hospital and the Sanatorium do splendid work.

The Natal Society is the oldest of all local institutions, and counts amongst its members the colony's most learned, eminent and influential men. It maintains a commodious building, which contains subscription library and free reading room.

The principal clubs are the "Victoria" and the "Natal."

Shooting

In May of each year the annual Natal Bisley meeting is held. At this meeting valuable trophies and prizes are competed for, and its popularity and importance may be gauged from the fact that competitors attend from the neighbouring colonies.

Industries

The industries include large railway workshops, a brewery, a tannery, printing works, carriage and wagon manufactories, brick works, and other smaller enterprises.

Exhibitions

An important show is held annually in connection with the Agricultural Society, and all manner of colonial productions, manufactures, implements, stock, etc., are exhibited thereat. The Horticultural Society, Natal Poultry Club, and Maritzburg Kennel Club, are other well-reputed institutions that give yearly exhibitions.

Art Gallery

Situated in the Town Hall is the Municipal Art Gallery, which contains a good collection of oil and water colour paintings and etchings. The collection includes works by well-known artists oversea and in South Africa.

MUSEUM

Dr. Ernest Warren has kindly furnished the following notes regarding this excellent institution :—

This institution owes its origin to small beginnings, and it may be interesting to indicate in this place the foundation of museums in Natal.

On May 9th, 1851, a literary society and a library were inaugurated in Pietermaritzburg under the name of the " Natal Society " ; and a few years later it was resolved by the Council that a collection of natural history specimens should be formed with a view to founding a local museum. The chief movers in this suggestion were Sir Henry Bale, Major Furse and Mr. F. J. Spence. Small collections of various objects were gradually formed, and were exhibited in inexpensive glass-cases arranged in the public reading-room of the Society. Mr. J. F. Quekett was appointed curator, and assistance in the arrangement of some of the collections was rendered by voluntary helpers ; Mr. H. C. Burnup classified the shells, and Messrs. T. Bennett and Draper named the geological specimens.



Natal Museum

Ethnographic Room, and Mineral Gallery above

The available space in the reading room of the library soon became filled, and in the year 1891 a room about 40 feet by 15 feet was rented in the immediate vicinity of the library for the temporary reception of the specimens.

In 1894 the Council of the Natal Society erected a museum hall about 90 feet by 45 feet, with lantern top lights, in the rear of the present premises of the Society at a cost of £800, and a sum of about £200 was spent in additional glass cases.

In about seven years this hall had become full, and, largely owing to the exertions of Mr. Morton Green, J.P., the necessity of greater accommodation was forcibly brought before the notice of the late Natal Government. It had now become obvious that for the museum to become of educational value, and for the institution to take its proper place in the province funds beyond the disposal of the Natal Society would be required. The Natal Society approached the Government, and offered the whole of the collections if suitable accommodation could be found for them. After due deliberation the Government decided to create a Museum Department, and accordingly the present building was erected in the years 1902-3. The Government incorporated the Museum by Act of Parliament under a Board of Trustees, with Arnold Worthington Cooper, Esq., J.P., as chairman; and since that time the institution has been entirely supported by an annual grant-in-aid voted by Parliament.

The present director was appointed in 1903 and the new building was half completed before his arrival.

The building, which is shown on page 127 (fig. 5), is of red brick faced with stone. It has a frontage of 107 feet, and a depth of 80 feet, and consists of a ground and first floor. Offices and a library face the street on the ground floor, while at the rear of the building there are some temporary work-rooms. The remainder of the ground-floor consists of an entrance hall and four exhibition halls. The first-floor consists entirely of exhibition rooms and galleries. The lighting of the building is mainly effected by sky-lights.

The museum-cases are of iron and plate-glass, and the installation was undertaken by a London firm. They are the patent of Aug. Kuhnscherf u. Söhne, of Dresden, and are found to be very satisfactory. Iron-cases are very necessary in a climate subject to great variations in temperature and humidity, as wood under these conditions invariably warps in the course of time, and it is also subject to the attacks of wood-boring beetles and other insects.

Before giving a sketch of the nature and present arrangement of the collections a brief resumé of the growth of the institution since 1903 may be given.

The collections handed over to the Government Museum were small and quite insufficiently labelled and described. The one that was of the most value was that of Natal birds, and the majority of the bird-skins had been presented by Mr. Graham Hutchinson; but, unfortunately, some of the specimens were subsequently poorly mounted, and therefore a severe selection was necessary.

The collections that were ultimately transferred to the new building in 1904 had shrunk considerably in volume, and thus on the opening of the museum on November 30th, 1904. by the then Governor of the Colony, Sir Henry McCallum, K.C.M.G., the building appeared very bare, and the exhibition cases were scantily occupied.

At this time an expedition into Zululand to secure specimens of antelopes and other mammals was organised; and the Chief Commissioner of Zululand, Sir Charles Saunders, rendered the museum great assistance. A considerable number of the specimens thus acquired have now been artistically mounted by Mr. F. Teschner, the museum taxidermist.

Valuable collections have been presented to the museum. Mr. H. C. Burnup has donated the whole of his very fine collection of South African shells, which he has arranged with great care and scientific accuracy; and Mr. J. M. Hutchinson has also presented his valuable entomological collections. More lately a good series of Natal rocks has been arranged by Dr. F. H. Hatch. These were collected by him during his recent tour of investigation into the mineral resources of the Colony.









Pietermaritzburg Museum

1. Entrance Hall 2. Bird Gallery 3.—General Mammal Hall 4. Lower Vertebrate and Invertebrate Room

For some years the museum possessed a field collector, and he obtained from Zululand considerable collections of reptiles, fresh-water fishes, amphibia and various invertebrates.

In 1907-1909 Sir Matthew Nathan, G.C.M.G., the then Governor of Natal, took a great interest in the ethnographical department, and he has presented numerous unique specimens and has also caused to be sent to the museum some very valuable collections from West Africa.

In addition to these sources of growth, the general public has shown commendable interest in the institution, and miscellaneous specimens of all kinds are constantly received.

In fine, the collections have so grown by presentation, purchase, local collection, and by the donation of single specimens, that the present museum buildings are practically filled and additional accommodation is urgently required.

This being the case Sir Matthew Nathan and the trustees of the museum approached the matter to the Government, and it was ultimately decided that a suitable extension to the present building should be made.

The extension which is now being erected will take the form of a large quadrangle, some 107 feet in length, 80 feet in depth, and 40 feet in height. A wide gallery at a height of 19 feet from the ground-floor will extend all round. The present temporary workrooms at the rear of the museum premises will be removed, and more convenient ones built at the back of the new extension. Owing to the fact that the extension will occupy nearly the whole of the museum garden, a strip of land 49 feet in width has been purchased and added to the museum premises, and this will allow of future expansion.

And now let us return to the exhibition halls and examine some of the more striking objects of interest that may be seen there.

The entrance porch contains some large pieces of silicified tree-trunks which came from the Ecca Shale of Palæozoic age. Such fossil-wood is common in South Africa, and it belonged to a species of conifer which apparently flourished abundantly in this region in the long distant past.

Standing in a roped enclosure in the entrance hall is a fine specimen of the African elephant. The specimen was procured from Port Elizabeth in 1908, and has been effectively mounted with raised trunk.

In the entrance hall there are also objects of local and historical interest, such as the old treasury chest of the Colony, maps, and a series of topographical photographs.

On the right and left of the entrance hall are the ethnographic rooms. Here there are exhibited very complete collections of objects used by the natives of Natal (*Ama Lala*) and Zululand (*Ama Zulu*). Specimens of Bushman paintings on stone, and a large number of coloured tracings are also displayed. This department has received great encouragement and assistance from Sir Matthew Nathan, G.C.M.G., and he has secured some very valuable ethnographic collections from West Africa. Captain Armitage, D.S.O., has presented a fine collection from Ashanti; Monsieur Clozel, Governor of Upper Senegal, has sent one from his Province; Mr. Bedford Glasier has contributed from Lagos; and the Governor of German West Africa has also caused an extensive series to be sent from Windhuk.

A large series of ethnographical photographs is also exhibited in this department.

It is desired that all the chief native races of Africa shall be represented in the collection. The series will constitute an unique record of the peoples at the present time, and in the future it will be invaluable in scientific enquiries and in marking the rapid changes that they are undergoing through contact with Europeans.

The remaining exhibition halls on the ground-floor are devoted to mammals. The larger hall contains a general series arranged systematically. For educational purposes selected foreign types such as bears, deer, etc., are included, but these are distinguished from the African mammals by the colour of the labels. A roped enclosure contains a giraffe, a hippopotamus, a group of two black rhinoceroses fighting, also a lion springing on a zebra.

The smaller mammal hall contains some of the typical antelopes of Natal and Zululand. As far as is possible these are arranged in natural groups of male, female and young, and the mounting of the animals is quite unsurpassed by even the best known museums in Europe.

A teak staircase leads to the first floor, and on the wall facing the entrance there is grouped a good series of antelope horns, comprising the great majority of South African species.

The bird collection comprises some 1,200 specimens exhibited in one of the galleries. As the material grows it is intended to exhibit these in natural groups, since in this form they constitute a much more interesting series than if mounted separately on plain stands.

In the second gallery an anatomical collection is exhibited, comprising skeletons and dissections of typical animals. This collection appears to greatly interest the general public, and it is, of course, invaluable to students.

The lower vertebrate collection consists of good series of Natal reptiles, amphibia, and freshwater and marine fishes. The majority are preserved in spirit or formalin and displayed in museum jars ; but a few are mounted dry with appropriate surroundings.

Of invertebrate collections the museum contains fine series of Natal butterflies, moths, beetles, land and marine shells, etc.

The geological department has received considerable attention. There is exhibited a comprehensive series of typical rocks from various parts of the world. Then follow a series of specimens of the Natal igneous rocks, and representative specimens of the sedimentary rocks of the different geological horizons of the Colony, and lastly a series of metamorphic rocks, such as gneisses, schists, marbles, etc.

The mineralogical collections are arranged in an analagous manner. There is a good series of typical minerals from all parts of the world, and following these a collection of local minerals.

A collection representing the action of geological agencies, such as weathering, earth-movements, volcanic action, etc., has been arranged.

The walls of this hall are provided with some impressive photographic enlargements of typical Natal scenery, also maps and sections dealing with the geology of Zululand and Natal.

The Colony is very poor in fossil-remains, but some specimens of fossils from the Cretaceous beds of the coast, and plant-remains from the Natal Coal Measures are exhibited.

On the completion of the new mammal hall the accommodation for all the departments will be much increased and improved, and the present general mammal hall will be converted into a bird-room, in which the specimens can be beautifully displayed.

It may safely be said that when the re-organization is completed, the accommodation, arrangement, and quality of the exhibition collections will be quite unsurpassed in this continent.

Places of Worship.

Pietermaritzburg









1.—Wesleyan Methodist Church
2.—Cathedral Bells
3. St. Peter's Cathedral
4.—Dutch Reformed Church
5.—Congregational Church



Interior of Theatre, Pietermaritzburg

ENTERTAINMENTS

Maritzburg possesses a fine theatre. High-class concerts and other entertainments are organised throughout the year, and outside the wide array of local talent, distinguished artistes from every part of the globe visit the city. Sacred concerts and organ recitals are held in the Town Hall at frequent intervals.

RELIGION

Quite a number of sacred edifices are to be found. There are two cathedral-churches—St. Peter's and St. Saviour's. The remains of that great ecclesiast and scholar, Dr. Colenso, first Lord Bishop of Natal, repose beside the altar in St. Peter's. To indicate the religious fervour of the citizens, a former writer may be quoted: " Every denomination is strongly represented, and the style of building together with the interior fittings, are sufficient evidence of the religious vitality."



Boating on the Umsindusi





Government Day Schools, Pietermaritzburg

1.—Girls' Model School

2.—Girls' Primary School

Education

Maritzburg is an educational centre of considerable importance, and its scholastic advantages are sought not only by young Natalians, but also by those from the neighbouring colonies. At Maritzburg itself the College schoolmasters are University men, and the curriculum embraces classics, English, literature, science, mathematics, modern languages, etc., as well as elementary subjects. There are important educational institutions, the Government Boys' Model Primary School, and two Girls' Primary Schools, besides denominational and private scholastic establishments. The coloured children have also their schools. The colleges at Hilton Road and Balgowan, and the girls' private school at Zwaartkop are mentioned elsewhere.

Natal University College

A University College has been established in the city in which instruction is given in classics, literature, law, science and art, and such other studies as may from time to time be prescribed by the University of the Cape of Good Hope. The University College Buildings are being erected at Scottsville on a site granted by the Corporation.

Newspapers

Two dailies are published in Maritzburg, viz., the *Natal Witness* in the morning and the *Times of Natal* in the afternoon. Both are in able hands, and enjoy a wide circulation. There are also the *Provincial Gazette*, *Natal Afrikaner*, and *Agricultural Journal*, issued weekly, bi-weekly, and monthly, respectively.

Banks

Branches of five Banking Corporations are in the city. The Natal Bank, Ltd., the Standard Bank of South Africa, Ltd., the Bank of Africa, Ltd., the African Banking Corporation, Ltd., and the National Bank of South Africa, Ltd. There is also a Government Savings Bank.

Garrison, Militia, Natal Police

Fort Napier, which is the chief military centre in time of peace, overlooks the town. New accommodation has recently been provided for the troops, which, together with other improvements, make it one of the most up-to-date and healthy stations in South Africa.

There are two Militia regiments—the Natal Carbineers and Natal Royal Regiment—as well as a Battery of the Natal Field Artillery. The Natal Mounted Police headquarters are also at Pietermaritzburg.

There are several rifle associations, chief among which are the Maritzburg Rifle Association and the City Reserves Rifle Club.

The main railway line gives access south to the port of Durban and to Richmond (*via* Thornville Junction) north, to Howick, Mooi River, Estcourt, Ladysmith, Harrismith, Glencoe, Dundee, Newcastle, Charlestown, and the Transvaal, while a branch line radiates from Maritzburg, running to Greytown in Umvoti County. The new route to the Cape has its junction with the Natal trunk line at Maritzburg.

The suburbs of the capital reached by rail are Pentrich, Fox Hill, Zwaartkop, and Hilton Road, on the main line.

Hotels and boarding houses are plentiful, catering for all classes.

Locomotion in Maritzburg is provided by cab, jinricksha, or pony rickshas, in addition to the electric tramways.

The street plan of Maritzburg has been specially prepared by the borough engineer, and will be found to embody much useful information.



Cadets in front of Supreme Court Buildings



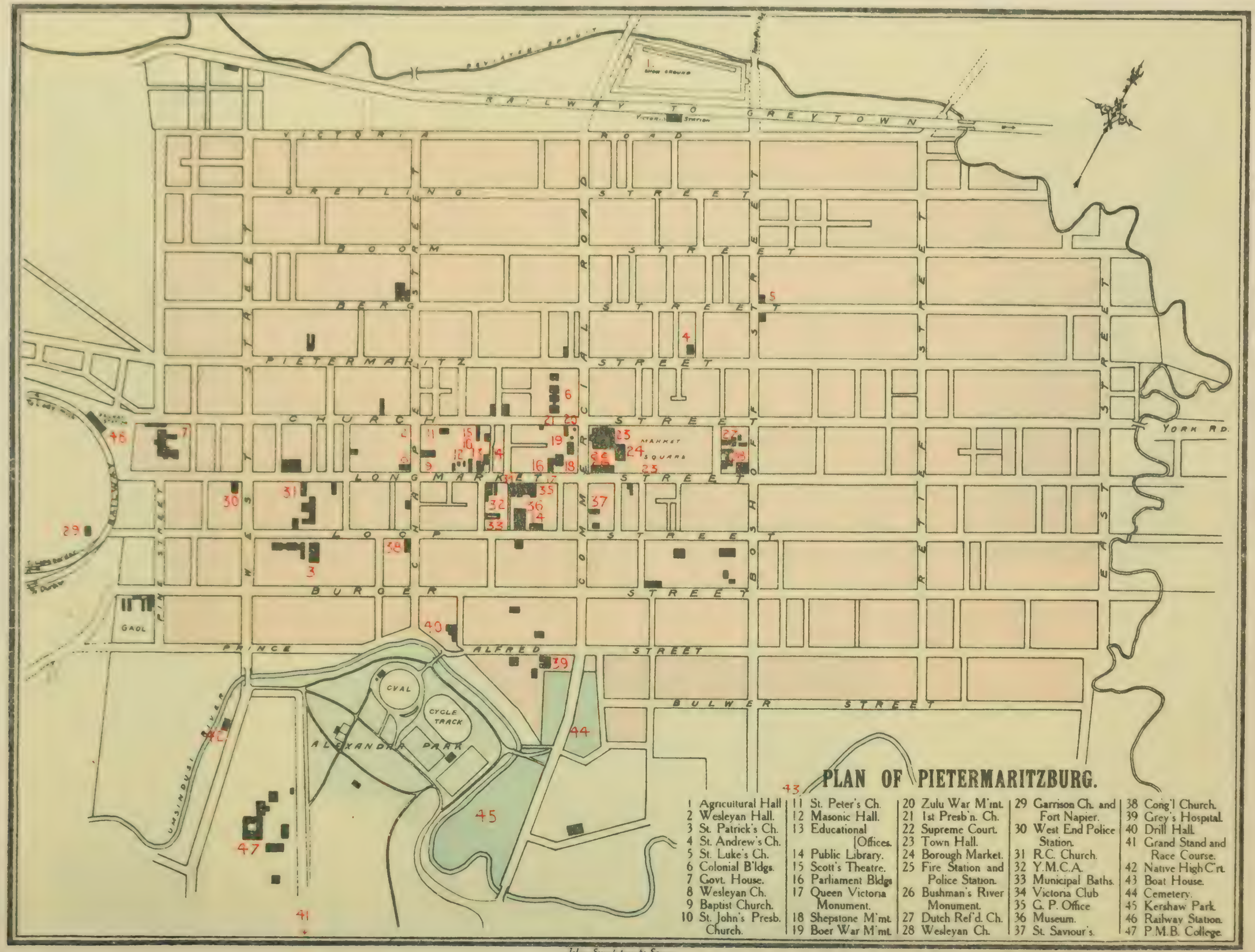
Zwisha Stand



Volunteers in the Park



Natal Mounted Police



PLAN OF PIETERMARITZBURG.

1 Agricultural Hall
2 Wesleyan Hall.
3 St. Patrick's Ch.
4 St. Andrew's Ch.
5 St. Luke's Ch.
6 Colonial B'ldgs.
7 Govt. House.
8 Wesleyan Ch.
9 Baptist Church.
10 St. John's Presb. Church.
11 St. Peter's Ch.
12 Masonic Hall.
13 Educational Offices.
14 Public Library.
15 Scott's Theatre.
16 Parliament Bldgs
17 Queen Victoria Monument.
18 Shepstone M'mt.
19 Boer War M'mt.
20 Zulu War M'mt.
21 1st Presb'n. Ch.
22 Supreme Court.
23 Town Hall.
24 Borough Market.
25 Fire Station and Police Station.
26 Bushman's River Monument.
27 Dutch Ref'd. Ch.
28 Wesleyan Ch.
29 Garrison Ch. and Fort Napier.
30 West End Police Station.
31 R.C. Church.
32 Y.M.C.A.
33 Municipal Baths.
34 Victoria Club
35 G. P. Office
36 Museum.
37 St. Saviour's.
38 Cong'l Church.
39 Grey's Hospital.
40 Drill Hall.
41 Grand Stand and Race Course.
42 Native High C'rt.
43 Boat House.
44 Cemetery.
45 Kershaw Park.
46 Railway Station.
47 P.M.B. College.

John Singleton & Sons



PIETERMARITZBURG TO MOOI RIVER

CHAPTER VII



RECOMMENCING our journey northward, after clearing the busy railway yard, we have upon our right a wide spreading plain, with a lofty range of hills in the background. Fixing our eyes upon the predominating peak—the ZWAART-KOP—and then gazing over the well-wooded mountains in the background, we view the pleasant situation of the Botanical Gardens, to which the Pietermaritzburg electrical trams now run, the waterworks, and the beautiful town bush and Chase valley, which have been already mentioned. At the base of the hills is the suburban depôt, VICTORIA STATION, and stretching towards us are the military parade, polo, and recreation grounds.

The Municipal Power Station and the Government Cold Storage premises are alongside the line, and the large brick buildings located some distance to the north-east are the railway engine sheds, beyond which the Greytown Branch runs. Our train is now toiling up the Town Hill, and to those who travel over the Natal main line for the first time this stretch of the journey is probably the most novel and interesting. From Pietermaritzburg to Hilton Road the line is nothing short of a zigzag mountain railway. The



Pietermaritzburg Railway Station

distance between these points is less than 12 miles, in which the train ascends 1,500 feet, and which journey, although given the best possible circumstances, cannot be negotiated much under an hour. However, although the journey may appear slow, the scenery from the train as it ascends the Zwaartkop Hill is ample compensation for the time taken to accomplish it. Immediately after leaving Pietermaritzburg we pass on the right-hand side—the site of the Boer Refugee camp, and on the left, Fort Napier, with its numerous buildings, while in a moment the military cemetery appears in sight. Still winding slowly upwards the Military Camp Siding is passed, while far below an immense farm and hut-speckled plain, darkened by eucalyptus plantations, with mountains curiously-shaped come into view.



Military Cemetery, Pietermaritzburg

Many roads lie across this map-like plain, and one of them leads to EDENDALE, a native mission station of considerable influence. Edendale is not renowned for native mission work alone, it is also a favourite pleasure ground, and the falls of the Umsindusi attract many photographers and other visitors. The Natal-Cape section of the railway now serves this locality.



Pietermaritzburg from the Town Hill



Sweetwaters

Passing GRANGE staff station, and continuing the upward climb, even and anon bird's-eye glimpses of the city and the lowering Table Mountain with Spitzkop are seen. The train at last halts at Zwaartkop from which station a grand and complete view is obtained of the Natal capital.

ZWAARTKOP stands

Altitude	2924 feet.
Distance	76 miles.

800 feet above the city, and is served both by the railway line and the Pietermaritzburg Corporation trams, the latter coming to within ten minutes' walk of the village, which is a favourite resort. A point of interest is Teteleku's kraal, which is only one mile from the village and is on the hill overlooking the railway line. It is now in the possession of Chief Laduma, son of the late Teteleku and the natives in the district are under him. Near the station is the Uplands High School, which is a popular seminary for girls.

Leaving Zwaartkop we advance to a still higher altitude and traverse one of the most charming stretches of country imaginable. The line hugs the sides of the hills, and

SWEETWATERS, the next station,

Altitude	3179 feet.
Distance	77 miles.

situated in a kloof, is one of the prettiest depôts along this part of the line. It is a favourite resort for Pietermaritzburg people on public holidays, and hundreds visit the kloof, from which the streams flow which contribute to the town water supply. In addition to its general attractiveness there is here an ironworks which is one of the pioneer establishments of the Province, and great advantages are to be derived from the iron deposits from which iron ore is



Falls at Sweetwaters



Main Line near Boshoffs Road

acquired for smelting purposes. Pig-iron of good quality has been manufactured at these works.

WINTERS KLOOF. Winding through cuttings to a greater elevation we gain another of nature's vantage points at Winters Kloof. With an increasing natural desire for country residences this place has every prospect of becoming a favourite suburb of Pietermaritzburg, as in addition to its altitude and beautiful surroundings it is especially favoured with an excellent water supply. The end of our ascent is not yet, although we have risen something like 1,200 feet since leaving the city, and in order that the engine after negotiating such a haul should have a new water supply a brief halt is made here.

Altitude · · 3309 feet.
Distance · · 79 miles.

BOSHOFFS ROAD.—Fruit is grown in large quantities in this district, it is also a popular resort for picnic parties, who in ever-increasing numbers take advantage of its sheltered glades. About a mile and a half away, at Kettlefontein, there is a country inn. We are now nearing the summit, the engine having, during its journey from the capital, vaporised 1,500 gallons of water and consumed 30 cwt. of coal.

Altitude · · 3407 feet.
Distance · · 80 miles.

HILTON ROAD which has an excellent and frequent train service is next reached. It is an important wattle-growing centre; in close proximity to the railway line there are over 5,000 acres under successful wattle cultivation. There is a magnificent view extending for a hundred miles. It is also a charming residential part of the Berea of Pietermaritzburg, and should in the future become the most fashionable and popular—as it is the most healthy — suburb of the city. Two important schools, Hilton College (for boys) and St. Anne's College (for girls), are situated within easy access of the station, and many of Natal's prominent citizens have been educated at these establishments.

Altitude · · 3703 feet.
Distance · · 82 miles.



Mine Props for the Rand



Wattle Plantation

St. ANNE'S DIOCESAN COLLEGE FOR GIRLS

HILTON ROAD, NATAL.

From a small school in Pietermaritzburg, taken over in September, 1879, and removed in 1881 to what was once known as Bishop's College in that city, has sprung the Diocesan College of St. Anne.

The numbers having outgrown the accommodation, it was resolved to erect a new building at Hilton Road. The foundation was laid by His Excellency the Governor on August 8th, 1903 and the completed building was blessed by the Bishop on September 8th, 1904.

The new college is a fine building, containing a chapel, large halls, class-rooms and dormitories with separate cubicles. It stands in 18 acres of ground in full view of the Drakensberg range. The grounds are well laid out in gardens, hockey field, tennis courts, etc. The climate is bracing.

There is an excellent water supply and a private laundry.

Full advantage is taken of the facilities for Nature study afforded by the admirable situation of the school. There are opportunities for learning scientific bee-keeping and gardening.



St. Anne's Diocesan College for Girls

The education is similar to that given in English high schools. Pupils are prepared for the Cape University Examinations, Cambridge University Local Examinations, Royal College of Music, and Royal Drawing Society Examinations. All information may be obtained from the Lady Warden.

HILTON COLLEGE

Hilton College, a public school for boys (boarders only), was founded in 1872 by the Rev. W. Newnham, who was succeeded in 1878 by Mr. H. V. Ellis. In 1903 the school was acquired by the "Old Boys," an influential committee of whom form the governing body.

The school is ideally situated, five miles from Hilton Road station, on an estate of 1760 acres. New buildings were opened in May, 1905, providing accommodation for 100 boarders. A favourable opportunity only is waited for extension of these. The school admits boys from the age of 12 years to 19 years, but there is also a preparatory department for boys from eight to 12 years of age.

The curriculum of the college and the life there are modelled on those of the English public schools.



[Photo by Hilton College Co

Hilton College

CEDARA.—Immediately after leaving Hilton Road, away to the left is observed one of the landmarks of Natal, the Zwaartkop Mountain, at the base of which runs the boundary of the Government Experimental Farm—with headquarters at Cedara.

Altitude - -	3541 feet.
Distance - -	84 miles.

The summit of the Zwaartkop is one of the main natural signalling stations of South Africa, it forming one of a series connecting, on the one side with the Bluff at Durban, the Drakensberg on the other, and from thence into the Orange Free State. The Karkloof range of hills are close at hand, where the celebrated Karkloof Falls precipitate themselves into the magnificent ravine below, and behind—in the blue distance—the Drakensberg, although 80 miles distant, can be seen with its jagged peaks and pinnacles, the outlines of which when covered with snow are even more distinct. A full view of the Government farm is obtained from the line, with the college and buildings in the foreground. The wattle tree known as *acacia mollisima* is the variety of tree grown here, and thrives even better than it does in its native habitat in Australia. When in full bloom the perfume is peculiarly pungent, and attains its maturity in from six to seven years.

Already extensive wattle plantations are to be seen, and there are several companies now being floated for the further extension of this industry. A peculiar feature of certain districts along the main line is that, owing to their



The College, Government Experimental Farm, Cedara

altitude, they attract the clouds and form mist belts. The first of the series is in the Bothas Hill district; the second terrace is the district through which our train is passing, namely, Hilton Road and Cedara. Further along the line the third terrace is at Nottingham Road, and the fourth at Highlands, hence the southern slopes of these reaches or table lands are more fertile than the reverse slopes.



Falls near Hilton College

HOWICK needs scant introduction,

Altitude	3439 feet.
Distance	88 miles.

being one of the chief health and pleasure resorts, and in addition is one of the best farming districts. The chief attraction lies of course in the celebrated Umgeni Falls. The river at this point dashes over a precipice over 360 feet in height. In the rainy season, namely, from October to March, the sight of this water pouring over the



Howick Falls

mighty rock is magnificent. The Kirkloof Falls, situated some nine miles from Howick, suffer somewhat by lack of height in comparison with the Howick Falls, but are much superior in the splendour of the surrounding country. They are formed by tiers of beautiful cascades having an aggregate descent of over 350 feet. Arrangements may be made with the hotel proprietors for the hire of conveyances to visit these falls. The village of Howick is two miles from the railway station, and vehicles from the "Falls" and "Castle" hotels meet all passenger trains.



Lower Falls, Howick

The Railway Hotel is immediately opposite the station. The usual social institutions, such as churches, library, and clubs, are in evidence, good fishing may be secured above the falls, and boating may be safely indulged in.

HOSPITAL SIDING.—Shortly after leaving Howick we pass through Hospital Siding, which depôt—owing to its healthy situation—was the site of a field hospital during the late war. As we proceed the country maintains its beautiful wattle-timbered character, and the maize and vegetable fields indicate the agricultural possibilities of the soil.

Altitude	3465 feet.
Distance	90 miles.

FERNHILL is now quite near, and at this place a popular hotel is situated.

Altitude	3540 feet.
Distance	92 miles.



Karkloof Falls



Lions River Valley

TWEEDIE. –We soon make another stopping place, Tweedie, which station serves a flourishing wattle, dairying, farming, and stock-raising district. Close to this station is the famous Tweedie Hall Estate, on which farming operations are carried out on an extensive and up-to-date scale. The district is noted for the excellent stock which are raised on the various farms. Large supplies of milk are sent away from the station daily. Imported grass has prospered so well on the soil in this district that the land carries nearly double the quantity of the stock as compared with the natural veldt. As the Umgeni flows through this district the lands have the additional advantage of being well watered.

Altitude	3630 feet.
Distance	93 miles.

DARGLE ROAD.—As we pass through Dargle Road, to the left the country is broken up by marquee-shaped hills, and further on the Inhluzani group may be espied. The Dargle Road station marks the beginning of the trout-fishing district, but full particulars in connection with this increasingly-popular Natal sport will be found in another chapter.

Altitude	3477 feet.
Distance	95 miles.

Boating is popular on the Lions and Umgeni Rivers and the scenery in the vicinity is exceedingly attractive.

After exchanging staffs at ST. IVES



Preparing the ground for Maize

LIDGETTON is the next station reached. This is an agreeable hamlet with an invigorating climate. Beautiful spots abound in the kloofs not far from the station. About a mile distant are the Lion's River Falls, which may be seen from the railway line as the train proceeds towards Caversham. The hotel is just across the road from the station, and there are several good boarding-houses in the vicinity. Maize, potatoes, fruit, and wattle bark are all cultivated, and considerable dairy-farming is carried on. Passing from this station the train crosses the Lion's River and soon reaches the staff station at CAVERSHAM.

Altitude	3952 feet.
Distance	100 miles.

BALGOWAN is the next passenger station, and here light refreshments may be obtained while the train is detained for locomotive purposes. The most prominent feature in the landscape is Michaelhouse College for boys.

Altitude - -	4183 feet.
Distance - -	105 miles.

MICHAELHOUSE DIOCESAN SCHOOL FOR BOYS

BALGOWAN

Michaelhouse was opened at Balgowan as a Diocesan school in February, 1901. The aim of the founders was to provide a school, similar to the public schools of England, where definite religious teaching in accordance with the standards of the Church of England might be given, and a sound classical and modern education imparted, to fit boys to take their place as citizens in the public life of their country.

In February, 1909, a plain but dignified school chapel was opened, in which daily prayers are said, and Sunday services held to which the neighbours are invited.

The school prepares boys for the Cape Matriculation and Intermediate Examination, and for the Cambridge Local Junior and Preliminary. In 1904, and again in 1906, the Rhodes Scholarship for Natal was won by a Michaelhouse boy. There is accommodation for some 70 boarders, and the school is well-equipped with library, chemical laboratory,



Michaelhouse Diocesan School for Boys



Natal Farm

carpenters' shop, and excellent playing fields. The splendid climate of Balgowan, situated as it is 4,000 feet above the sea, makes it an ideal place for a school, and it is not surprising that Michaelhouse has enjoyed a remarkable immunity from sickness ever since it was opened.

There is good trout fishing in several streams. A daily runner goes from Balgowan to Currie's Post, as there is no post cart service to that place. Balgowan is without hotels, but Annandale House and at least one or two farms are open to receive paying guests. The district enjoys a fine climate and is not unpicturesque. Leaving Balgowan station the train skirts the boundaries of the Michaelhouse playing fields.

Immediately thereafter the line takes a wide sweep, and we are making headway to the halts METHVEN and KINGSTON. We shortly reach the fashionable health resort of

NOTTINGHAM ROAD.—This station is the centre of many interests and attractions. It is rapidly becoming recognised as the trout-fishing centre of the Union. It is also noteworthy as the furthest point to which the detached parties of the raiding Boers penetrated during their invasion into Natal. From this station Fort Nottingham may be visited. This is a stronghold which was used as a fort in the early days to keep bushmen cattle raiders in hand. Nottingham Road is

Altitude	4807 feet.
Distance	112 miles.



Natal Orchard—" Weeding "



Natal Orchard—" Pruning "

also one of the numerous stations along this section of the line giving comparatively easy access to the Berg; it being only two days' ride into Giant's Castle. Fruit grows in prodigal opulence in this district, and apples, pears, plums, and peaches are despatched from this station in large quantities. Immense quantities of maize, roots of various kinds, and turnips, grow well; a large proportion is sent to the Johannesburg market. Stock-raising and dairy-farming are extensively carried on, and the output of milk and cream is increasing. Sales of live stock are held monthly. The air is unparalleled for recuperative purposes, and the close proximity to the Drakensberg ensures a bracing climate. Immediately opposite the station is a commodious hotel under excellent management. In order to cater for those devoted to fly-fishing in the upper reaches of the Mooi River the hotel proprietor at Nottingham Road has erected bungalows on the river bank, which are situated a distance of about $2\frac{1}{2}$ hours' drive from Nottingham Road, and in connection with which all arrangements may be made at the hotel at Nottingham Road station. Extensive arrangements have been made for the comfort of visitors, full particulars of which will be seen in the chapter on trout fishing.



Mooi River

St. Wimfred's school for girls is about ten minutes' walk from the station, and is in close proximity to the farms of some of Natal's foremost public men.

ROSETTA, the succeeding station, is an ideal resort. There is an hotel in close proximity to the station, and the lake contiguous thereto affords opportunity for enjoyment. The surrounding country is interesting, and on a clear day the great mountains, with Giant's Castle supreme, make an imposing view. Close to this station is the Mooi River, in which excellent trout fishing can be enjoyed.

Altitude - - 1614 feet.
Distance - - 115 miles.

FOUNTAIN HALL is a stopping place.

MOOI RIVER is the most southerly point in which active operations took place during the recent Boer War. The Boers made an assault, under General Botha, on General Barker's position on the 21st November, 1899, and again on the 22nd, but were afterwards withdrawn at the command of the late General Joubert. Although the district is a very healthy one it cannot altogether be considered true to its name (Mooi meaning "pretty"), but it is owing to its splendid situation that it is much sought in summer time by coastal residents. The village is well served by three hotels. The neighbourhood is chiefly notable for dairying and stock-breeding, and, indeed, some of the best stock-raising farms in Natal lie between this station and the Berg. The Natal Creamery Company at Mooi River is a large and increasingly important establishment, and from its premises quantities of milk are sent to the Transvaal.

Altitude - - 4556 feet.
Distance - - 125 miles.

From this station good roads lead to Witteberg, which is the entrance to the Government Game Reserve at Giant's Castle, along the valley of the Bushman's River.

REIT VLEI is a considerable farming and stock-raising district in the Umvoti County, and is reached by post cart—which runs from Mooi River on Wednesdays and Fridays.



Mooi River Station



Umgeni River



WAR DISTRICT: MOOI RIVER TO LADYSMITH



CHAPTER VIII

HAPPILY the incidents connected with the late Boer War are receding and assuming a true perspective. The past ten years has witnessed many changes — political and commercial. In the history of South Africa it is extremely gratifying to record that at the opening of a new decade not only is the commercial outlook full of promise but the political and human relations between Briton and Boer are, as they should be, cordial. It is not, therefore, proposed in the following chapters to refer in detail to the incidents connected with the 1899-1902 war, but simply to indicate as historical landmarks the principal



"Outspanned"



Mooi River Field Hospital, 1901

points at which the engagements took place. The visitor will see many notable and historic hills, the magnificent Drakensberg and Biggarsberg ranges, broad alluvial valleys, and important rivers, but the verdure and luxurious growth which we have been passing will not be much in evidence. Nevertheless this area is, from a tourist's point of view, fascinating and attractive to the agricultural and stock-farming settler, and it is an important asset to the Province. As regards INDUSTRIAL CAPABILITIES, the Northern districts are pastoral, but owing, unfortunately, to the continued prevalence of tick fever the country has been depleted of the herds of cattle which are reared in this part of Natal.

All kinds of South African produce, roots, cereals, fruit, etc., are also extensively cultivated, whilst dairy-farming is successfully pursued. The immense coal mining operations—with their startling and rapid development in the latitude north of Ladysmith and particularly in the Dundee, Hatting Spruit, and Dannhauser districts—constitute one of the largest industries in the Province, and to which further reference is made.

New mines are being continually opened up in different parts of the country, which says much for the extensive coal deposits. A proving of other minerals, etc., is proceeding apace and profitable working is confidently anticipated.

Touching the matter of climate, it may at once be said that every place in this district enjoys a bracing atmosphere, and during the winter months, from May to September, the nights and early mornings are very cold.

The War Territory

As already stated, it is not intended to describe in detail the various engagements of which this district is so reminiscent, but full particulars of these instances if not already familiar to the reader—may be learned from such works as *The Times* "History of the War" "The Great Boer War," by Sir A. Conan Doyle; "The Natal Campaign," by Bennett Burleigh; "From London to Ladysmith, *via* Pretoria," by Winston Churchill; "With the Flag to Pretoria," by H. W. Wilson; "South Africa and the Transvaal War," by Louis Cresswicke; "Natal," by C. W. Francis Harrison, F.R.G.S.; and other books dealing with South Africa generally, in which indirect reference is made to the Natal Campaign.

The BIRD'S-EYE MAP OF THE WAR DISTRICT included with this work will be found useful. The country is shown in elevation and it is hoped that it will be of assistance to tourists who desire to visit the battlefields.

HIGHLANDS.—Leaving Mooi River the chief features of interest to the traveller will be the ever-changing view obtained of the Drakensberg. This was the last railway station vacated upon the approach of the Boers. The district is mainly a pastoral one.

Altitude	4954 feet.
Distance	131 miles.

DELL is the highest point above the sea between the Port and Majuba.

Altitude	5035 feet.
Distance	134 miles.

BRYNBELLA is a halt situated between Highlands and Willow Grange and became notable during the Boer War. The Boers having retired from Mooi River, their retreat was accelerated by General Hildyard, who held the next British post at Estcourt, and to force this unit of the enemy in front of the main British force was essential. With that object in view, in the early hours of the morning of the 23rd November, 1899, a small army covered by a naval gun on Beacon Hill attacked the Boers at Brynbella Hill, and after a severe encounter took the position.

Altitude	4785 feet.
Distance	135 miles.



Brynbella Hill

Panorama of Estcourt and Bonnie Hill



Corridor Train near Estcourt

WILLOW GRANGE.—The district in the immediate vicinity was the scene of much activity during the late campaign, and the fighting at Brynbella Hill already described is more generally known as the Willow Grange engagement. Maize, potatoes, and fruit, are largely cultivated here, and the district is famed for its bracing climate.

Altitude	4430 feet.
Distance	138 miles.



Bushman's River at Estcourt



Bushman's River Bridge, Estcourt

BEACON HILL AND MIMOSA are staff stations between Willow Grange and Estcourt. Approaching Estcourt the train travels over a high bridge spanning the Bushman's River, from which an extensive view of the surrounding country is obtained. A dominant feature of the landscape is a fort occupied by the Natal Mounted Police.

Altitude	4145 feet.
Distance	142 miles.

ESTCOURT.—The journey from Willow Grange to Estcourt is through very wild and mountainous country, the district being one of the most difficult that the South African Railways has to negotiate. The broken country, the Mimosa valleys, the winding Bushman's River, invite more than a passing glance. Estcourt being the chief centre for the surrounding district is of some importance. It was proclaimed a town on the 16th May, 1905, it has a population of some 600 people, and possesses substantial stone buildings, the principal among these being the Agricultural Hall in the show grounds, adjacent to the railway line, in which the most important of the agricultural shows north of Maritzburg is held. Included in its other public buildings may be mentioned the churches, library, two or three hotels. the sanatorium, and the Masonic Lodge, and, owing to the enterprise on the part of the local council, the water supply is excellent. Tours to the Drakensberg and Tabamhlope may be organised from Estcourt. The district is a good one for stock and dairy-farming. During the war Estcourt played an

Altitude	3833 feet.
Distance	146 miles.



Estcourt









Estcourt

1.—Anglican Church 2.—Railway Station 3.—Auricultural Hall 4.—Roman Catholic Church

important part, as it was a large British post for some time after the investment of Ladysmith, and a portion of the relieving army was concentrated there prior to General Buller's advance

WEENEN.- This important and historical settlement is situated about 20 miles

Altitude	2841 feet.
Distance	176 miles

to the north east of Estcourt, with which place it is now connected by a branch light line. After leaving Estcourt the line ascends for the first five miles, and its course, until it reaches the water shed between the valleys of the Bushman's and Blaauw Krantz Rivers, runs along more or less for 20 miles through thorn country. Thereafter it descends again into the valley of the Bushman's River, then on to the village



Weenen Light Railway

of Weenen. Some of the views along this line are very choice. Some 20 years ago the Government constructed a water furrow at Weenen, and placed a large area under irrigation. This was so successful that another on a much larger scale, and at a much higher level, was constructed about five years ago. The two furrows irrigate about 3,500 acres from which almost anything can be grown, the soil being so prolific that grain, roots, and tobacco grow well, while fruits are plentiful. Large quantities of lucerne are now being grown, and the cultivation of this fodder is likely to considerably increase. Ostrich farming

is also extensively carried on. The land under irrigation is divided into plots of from 50 to 70 acres each, on the majority of which houses have been built, giving the village a very comfortable appearance. The population of Weenen is about the same as that of Estcourt, but the larger portion of the inhabitants are the descendants of early Dutch pioneers.



Umkolumba

There are evidences of limestone deposits in the valley, coal is known to exist in the neighbourhood, and also around Estcourt. Near Weenen is the Umkolumba Mountain, which was used as a heliographic station throughout the Ladysmith siege. Weenen has a sad yet stirring history. In the year 1837, during their homeless wanderings, a band of Dutch emigrants from the Cape territory looked down from the heights of the Drakensberg upon the lovely plains of Natal.



Ostrich Farm at Weenen

Choosing as their leaders Piet Retief and Gert Maritz they came through the wild passes of the mountains to this then savage land, pitched

their tents along the banks of the Tugela and Bushman's Rivers, and treated, through the Zulu king, Dingaan, for a grant of land. The assassination of Retief and his party immediately after the cession was concluded is known. This, however, was but the beginning of greater bloodshed, for Dingaan, intent upon exterminating the remaining emigrants, at once despatched his impis on that inhuman errand, and each of the several encampments, of which Weenen was one, was attacked almost simultaneously in the middle of the night, and men, women, and children, helpless and paralysed by terror, were foully murdered, only the cattle being spared. In all some 900 were killed; the Boers wept greatly for the massacred, and in remembrance named their laager on the Bushman's River, Weenen, which means "weeping." They then waged war against their barbaric foes, but Dingaan's power was not broken until ten months afterwards, when the merciless and treacherous king was utterly defeated and 3,000 of his followers were slain. Four hundred were shot to say the Zulus, on the banks of a tributary of the Buffalo, whose waters ran red with their blood, and Blood River it is called to this day. This sanguinary battle occurred on the 16th December, 1838, which date is religiously observed as an anniversary of thanksgiving amongst the descendants of these hardy and adventurous voertrekkers. It is interesting to note that at Blaauw Krantz drift, about four miles to the east of Chieveley station, a cairn enclosing the bones of some of the massacred emigrants, was erected in 1897 on the site of one of the unhappy encampments.

WILLOWFORD is another staff station, about four miles from Estcourt.

Altitude -	- 3947 feet.
Distance -	- 151 miles.

ENNERSDALE is in the centre of a farming district. A good hotel is situated near the station. To the left the Drakensberg Peaks in their massive grandeur may be seen as the train proceeds, and this station is one of the points from which tourists can penetrate into the Berg, either to Cathkin Peak or Giant's Castle, in which district are to be found the caves once inhabited by those quaint human pygmies, the Bushmen, an aboriginal race now extinct. In these caves are to be seen their famous drawings or paintings, some of which are in an excellent state of preservation and are pathetic examples of "the touch of a vanished hand."

Altitude -	- 3913 feet.
Distance -	- 154 miles.

Tabamhlope, or White Mountain, 6,500 feet high, is accessible from this station, or from Estcourt.

Ennersdale is the station on the main line from which the Winterton line branches off.

After passing HEAVITREE (an intermediate halt), and before gaining Frere, a small cemetery is seen on the right hand side of the line, which reminds the traveller that he is now within the actual fighting area of the late Boer War.



Frere Bridge

FRERE was the headquarters of General Buller during his operations at Colenso. Mr. C. W. F. Harrison, in his book "Natal," says :

Altitude - - 3437 feet.
Distance - - 161 miles.

"From this point the flank movement was made along the Springfield Road to Spearman's Camp, culminating in the unsuccessful attacks upon Spion Kop and Vaal Krantz in the January and February following. Some of the officers and men wounded in the former engagement, and who died in the Military Hospital then stationed at Frere, lie buried in the same graveyard with those who fell in the armoured train disaster on the 15th November, 1899. The cemetery marking the site of the latter mishap, will be found close to a bend in the line on the right hand side, about a mile and a half north of the station. The circumstances of this unfortunate affair may be briefly recounted : An armoured train, containing in all some 120 officers, men, and railway staff was dispatched on a scouting expedition from Estcourt. The enemy cunningly allowed it to pass this particular spot, in the vicinity of which are several hills, then placed an obstruction on the line where it takes a curve. Back came the cumbrous, steaming scout, all at once it was vigorously shelled, full steam was put on, the train reached the fatal curve, stumbled, and the three front trucks toppled over, shooting the occupants on to the ground, only the engine and two rear vehicles keeping the rails. The enemy then rained shot



Site of Armoured Train Disaster Frere

and shell upon the unfortunate men, and although they retaliated with admirable spirit while the engine was cutting a way through the wreckage, the little force was out-numbered and out-gunned. The locomotive forced a passage back to Estcourt during the time the fight was proceeding, bearing some of the killed and wounded, but after a gallant stand against overwhelming odds, in which Mr Winston Churchill took a conspicuous part, the men surrendered. The casualties were one hundred killed, wounded, and taken prisoners."

For the information of those wishing to visit this graveyard, or the Springfield District, it may be stated that a roomy hotel is situated within a few minutes' walk of Frere station.

The Blaauw Krantz River flows near the station, and is strongly bridged by a new erection in place of the one destroyed by the Boers. The station-master's and platelayer's houses were the respective head-quarters of General Buller and Commandant General Joubert during one period of the war.

GRENFORD, a small section or dividing station, occurs between here and Chieveley.

Altitude	3575 feet.
Distance	164 miles.

CHIEVELEY is five and a half miles from Frere, and is set in the midst of an enormous tableland. This place was the site of General Buller's main camping ground, where at one time he had an army of over 20,000 men, and from whence he removed into action on the 15th December, 1899, for the first great battle of the relieving column.

Altitude	3521 feet.
Distance	166 miles.

A bird's-eye view of the Colenso Battle-fields may be obtained here, the veldt is exposed before one like a map.

Although the actual scene of the battle was at Colenso, many of the men who suffered death on this occasion are buried in the military cemetery about two hundred yards south of Chieveley station; amongst





Colenso and River Tugela from Hlangwane Hill



Tugela River at Colenso, Hlangwane Hill in background

the number being Lieutenant the Honourable F. H. S. Roberts, V.C., son of the veteran Earl Roberts of Kandahar. Gun Hill and Shooter's Hill are in the vicinity. Stock raising and maize cultivation are the principal pursuits in the district.

NAVAL HILL, the next sectional station, marks approximately the site of the engagement known by that name. The next station, seven miles from Chieveley marks the centre of the War District. In the West the Berg looms massively, and in the East, as the train proceeds, the ridge is seen to be broken up by huge boulders. Nearer the line are tiny mounds and crosses. This is the fatal field of Colenso.

Altitude	3277 feet.
Distance	170 miles.

Colenso: Its Battlefields

COLENSO.—Perhaps the first thought that occurs to the traveller on alighting at Colenso is the insignificance of the station and village as compared with the world-wide fame it has acquired as being the amphitheatre from the stage of which one of the most important engagements associated with the South African campaign was fought. The village from east to west is semi-girded by hills which lose themselves in the Drakensberg, and on its other borders is bare stony ground dotted with mimosa trees. Flowing from out of the Berg, and at the base of the minor hills, winds the longest, prettiest, and swiftest river in the colony—the Tugela, while extending into the distance is an immense donga-cracked plain. At the back of the hills are other eminences, which are continued by a series of elevated undulations ending on the other side in the hollow with the town of Ladysmith. To again quote Mr. Harrison:—

Altitude	3156 feet.
Distance	173 miles.

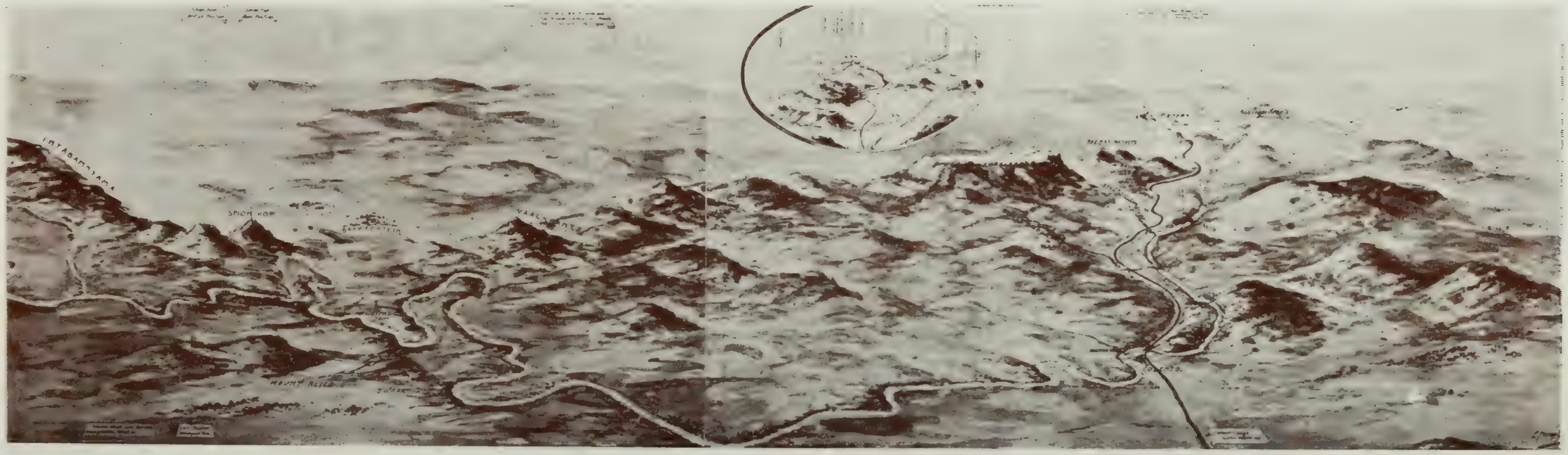
"Standing on the platform of the Colenso station and looking across the railway line, you will see a low-backed mound, isolated from the broken range. This is Hussar Hill. The big eminences behind are the noted Cingola, Green Hill, and Hlangwane, while Monte Cristo runs back between the two last-named hills. By walking a little distance upon the field in front, on a clear day can be seen the distant summits of "Hart's," "Railway," and "Pieter's" Hills, all of which are drawn in blood on the map of fame. A few hundred yards to the



Where Lieut. Roberts fell at Colenso



Railway Bridge, Colenso, 1899



Colenso Front

north-east of the station, immediately on the far side of the new bridge over the Tugela, stands Fort Wylie but neither the bridge nor the river are perceptible from the station. To the left of these again is a block of hills, all bearing traces of the Struggles of 1899 and 1900. In the distance the Grobelaar's Kloof and Doorn Kloof ranges are detained, while, far off with its deceptive proximity, is the Drakensberg. The village of Colenso is about 300 yards from the station, where a commodious hotel will be found. Guides have their head quarters there, and excursions, either by conveyance or on horseback, are organised daily to the many places and scenes of interest described. The arrangement of tours must necessarily depend upon the time at the visitor's disposal but a week or more can easily be spent in the district. Of course, the more prominent features of attraction can be seen in a couple of days. Colenso is not alone magnetic by reason of its battle recollections; it is a most invigorating spot, and has a distinct charm of scenery in the unsurpassable Drakensberg, whose soft green early-morning raiment is most beautiful, and whose deep blue evening mantling, fringed and pierced by a golden luminance, and backed by mingling crimsons, greys and greens, is indescribably grand."



Boer Bridge over the Tugela, 1899

Along the banks of the Tugela, stretching over seven or eight miles, may be traced the famous Boer trenches. The main wagon road is over the Bulwer Bridge. The original centre span to this bridge was shot away by the Naval Guns at Chieveley on the 19th December, 1899, in order to hamper the enemy's movements after the Colenso disaster. The number and the strength of the sangars and gun emplacements running along each side of the road for miles constructed by the Boers in anticipation of the relieving column forcing a passage this way—are particularly interesting.

The point of attack of General Hart's Irish Brigade is two miles along the South bank of the Tugela to the West of Colenso.

HART'S HILL was the first of the three famous Pieter's Heights attacked by the ill-fated Irish Brigade on the 23rd, and held with such tenacity until victoriously carried on the 27th February, 1900. From the summit of Hart's



Road Bridge, Colenso, 1899

Hill a splendid view is obtained. Beside is the Monte Cristo range and the Hlangwane slopes. On the right is the Colenso plain, the winding Tugela, and the Drakensberg forming a background. Immediately on the left are the other two hills, "Railway" and "Pieters," forming the trinity which barred the outer gate of the beleagured town. Looking from an opposite aspect towards Ladysmith, will be seen Sheba's Breasts, Grobelaar's and Doorn Kloof ranges, and across the plain below, the Umbulwana obstructs a further view. Railway Hill and Pieter's Hill, together with Hart's Hill, were the three chief physical characteristics in the closing scene of the great campaign.



Harts Hill



Main Line of Railway at Harts Hill

Spion Kop and Vaal Krantz are about 20 miles away, and persons desiring to visit these historical hills, as part of their Colenso tour, will find every facility at the hotel. There is an excellent post cart road which runs from Ladysmith to Spion Kop. The hills towards Grobelaars, the picturesque falls, and the valley of the Tugela should, if possible, also be visited, being so intimately connected with the operations preceding the entry into Ladysmith. In addition to its war interests this district is a splendid maize-growing centre. A number of settlers of the 20 years' purchase system are engaged in agricultural pursuits, and several plots on settlement terms are still available to those interested in maize culture. Minerals undoubtedly exist, but up to the present have not shown payable deposit.

Colenso to Ladysmith

The train journey from Colenso to Ladysmith is one of the most interesting to be made in South Africa. It has a dual interest, for not only does it possess a peculiar charm for its splendid woodland, mountain and river scenery, or for the demonstration of engineering skill in overcoming the almost insurmountable difficulties connected with the rugged country between the two historic places, but for this : that ground over which the train travels could tell a thousand tales of heroism, of gallantry, of fortitude, of an inflexible

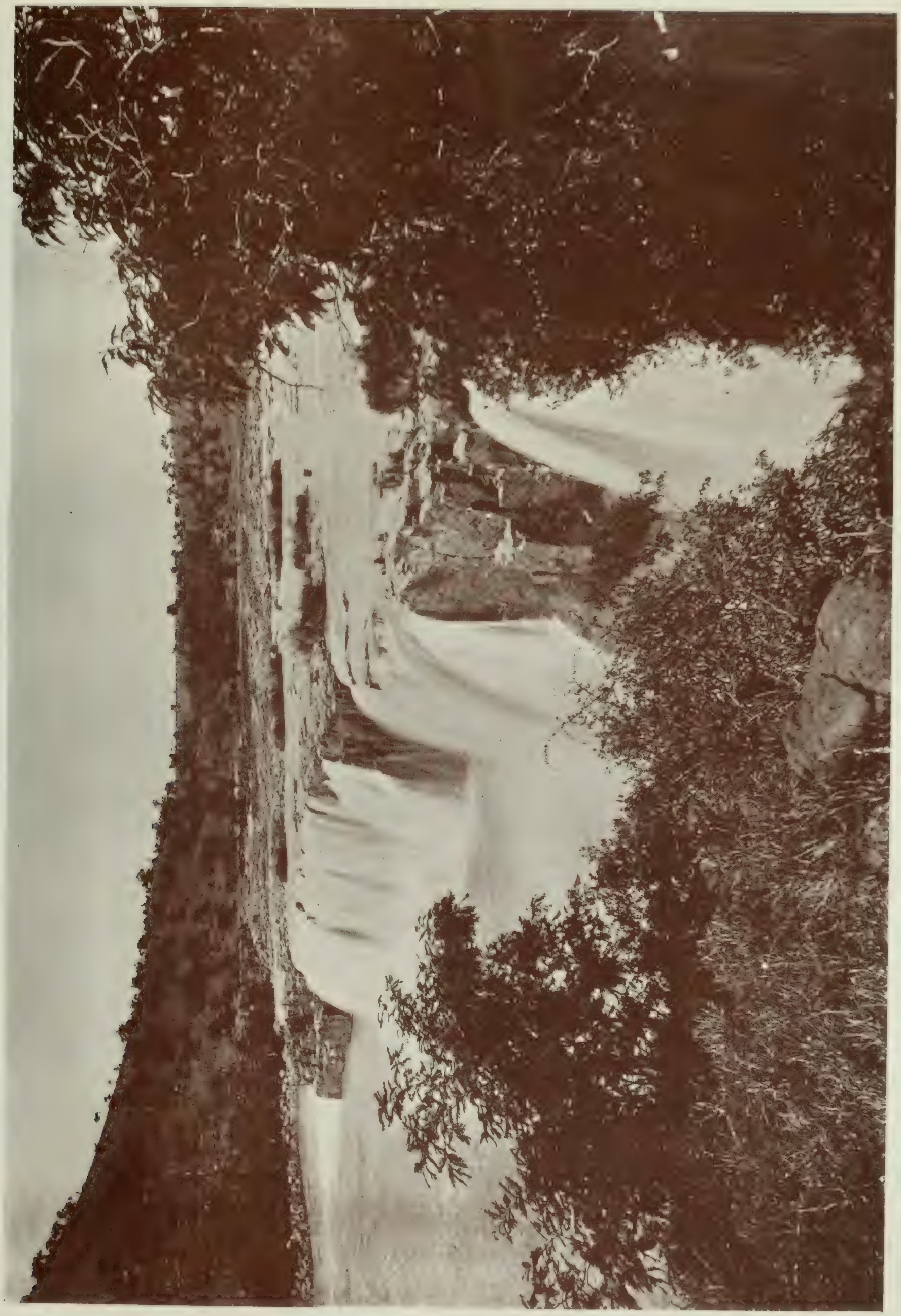


Vaal Krantz

determination to conquer, tempered with the attributes of mercy and forbearance, on both sides, which is a lasting tribute to the humanitarian asset of the British Empire. Passing over the Tugela, and leaving Fort Wylie behind, on the right is observed the continuation of Hlangwane with the Monte Cristo range coming into view. The pathetic part of this journey is sufficiently indicated by the numerous graves telling their own sad story, and which are scattered on either side of the line. Continuing our journey we detect the boulder-blocked river and the falls of the Onderbrook Spruit. Grobelaars Kloof is to the left and Sheba's Breasts—sometimes called the Sugar Loaves—and Hart's Hill, with its obelisk on the summit, are close together.



Nameless Graves at Colenso



Tugela Falls near Colenso



Monte Cristo Range and Tugela River

Within recent years, in order to reduce the severe gradient, a division has been made, and the line no longer passes over what is familiarly known as the pom-pom bridge which crosses the Langerwachte Spruit, but the latter is plainly discerned as the train ascends the bank towards Hart's Hill. On the other side of the spruit Fort Molyneux appears. Nature and circumstances provide compensation, and while the train is slowly ascending the vantage point at Hart's Hill the traveller has ample opportunity of surveying the country in its vicinity. It may be said with some degree of accuracy that there was more fighting in this strip of country than in any other part of Africa during the South African campaign.

A few hundred yards further on, on the Colenso side, is the site of the Boer Railway-Sleeper Bridge, and about the same distance on the Ladysmith side of the celebrated Tugela Falls was constructed a second pontoon bridge over which the British forces passed to Pieters Heights.

The line skirts the famous hill (Hart's) at the foot of which stands the Hart's Hill Halt, near which is a monument at the head of a long stone wall grave which marks the resting place of some of the Irish Brigade. To the right of Hart's Hill is Railway Hill, and on the opposite side of the line is the last conquered hill of all—Pieter's.

In passing onwards an exquisite view of the valley of the Tugela, along







1.—*Irish Brigade Monument, Hart's Hill* 2.—*Graves, Railway Hill, near Pieter*

which the forces worked, opens out. The track which the army had taken is apparent by the graves and monuments on the hills over which the forces had travelled. As the train nears the crest the grave of Colonel William M'Carthy O'Leary, commanding the South Lancashire Regiment, with four of his men lying on either side of him—one sergeant and three privates—may be seen alongside the railway line.

PIETERS.—It is a favourite method of tourists to take the train from Ladysmith to this place and then walk over the battlefields to Colenso, returning from either station as may best suit their convenience. Having climbed one of the many grades so peculiar to the Natal line the train pursues its journey on a falling grade towards Umbulwana. The Tugela Heights are quickly left behind, and in the distance will be detected some of the imposing promontories of the Biggarsberg.

Altitude · 3339 feet.
Distance · 180 miles.

UMBULWANA is a name familiar to many others than those actually engaged in the siege or the relief of Ladysmith. The place gets its name from the huge square mountain on the right at the end of which flows the Klip River. For a considerable distance the train follows the course of the stream passing *en route* the spot where just as the river takes a sudden bend, before the train leaves the valley, the Boers made an ineffectual attempt to flood out the inhabitants of Ladysmith by constructing a huge barrier of sand-filled sacks across the river, ultimately emerging upon a large square plot of ground with deep rows of headstones and crosses. This is the Indombi cemetery where lie buried 700 victims of enteric and other causes contracted during the siege. The neutral camp for non-combatants was immediately alongside, and traces of the occupation are still visible.

Altitude - - 3230 feet.
Distance - - 184 miles.



Gun Hill and Lombard's Kop



River Tugela near Colenso

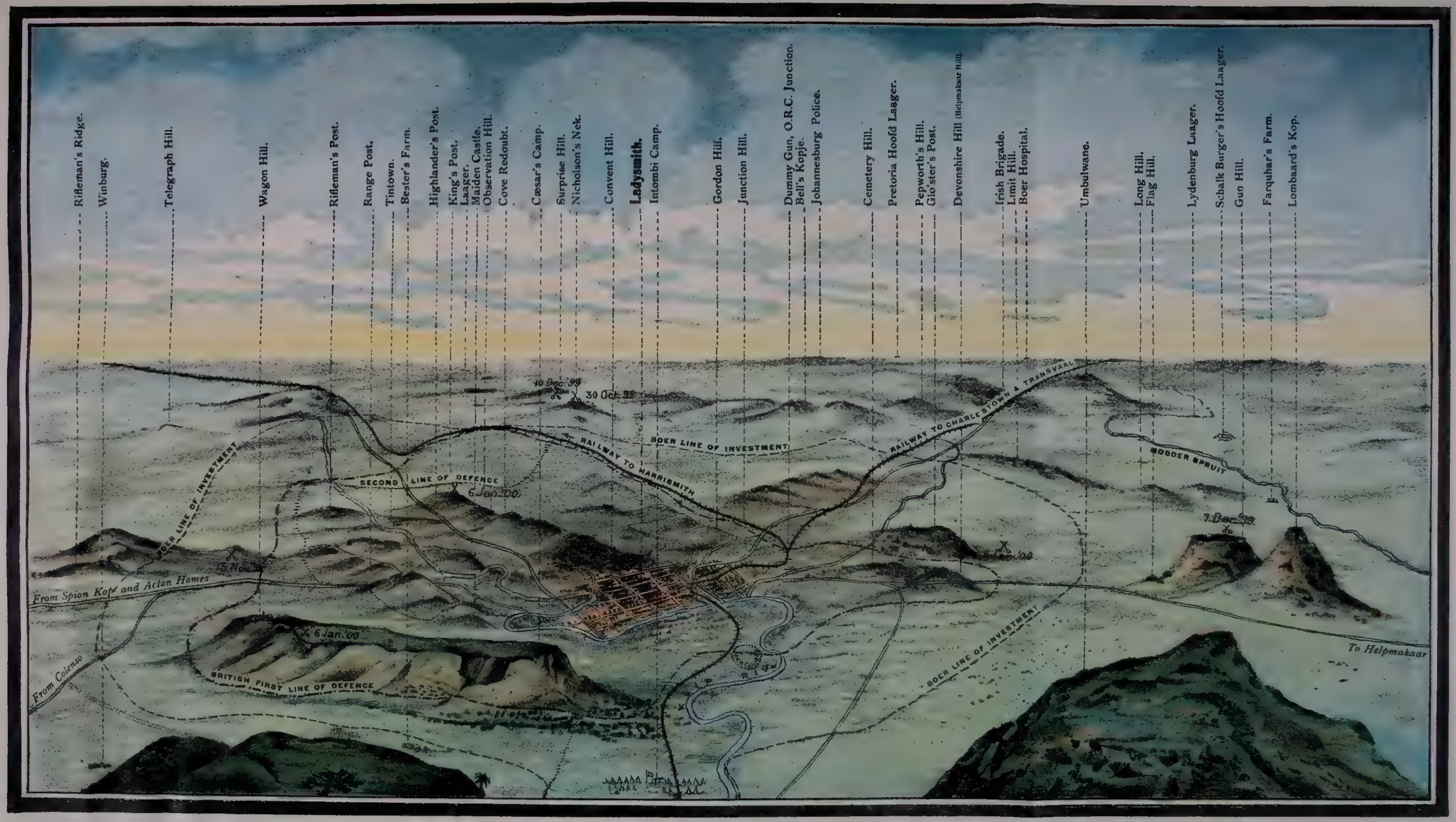


Meyvogel's Kloof near Pieters

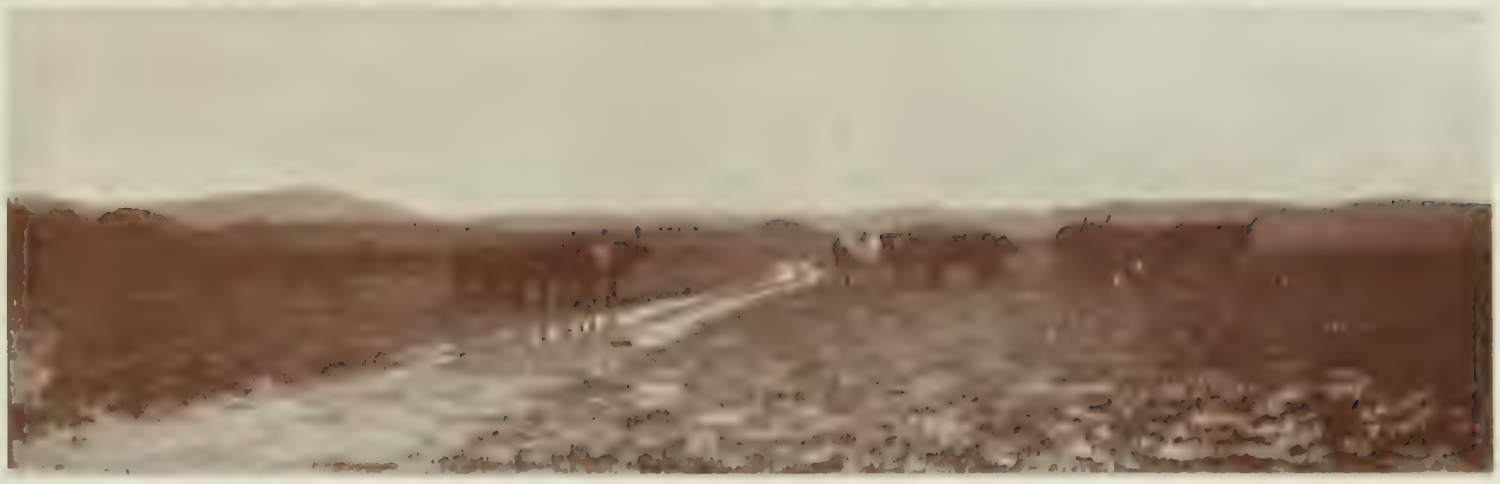
Umbulwana, Lombard's Kop, and Gun Hill, now come into view, and on the left is the historic range of hills—Cæsar's Camp and Wagon Hill. In the extreme right the Biggarsberg range is again seen, and flanking the train for several miles is a great grassy plain. No sooner is the Klip River passed than the train steams into the most notable railway station in South African history—LADYSMITH.



Nature's Staircase

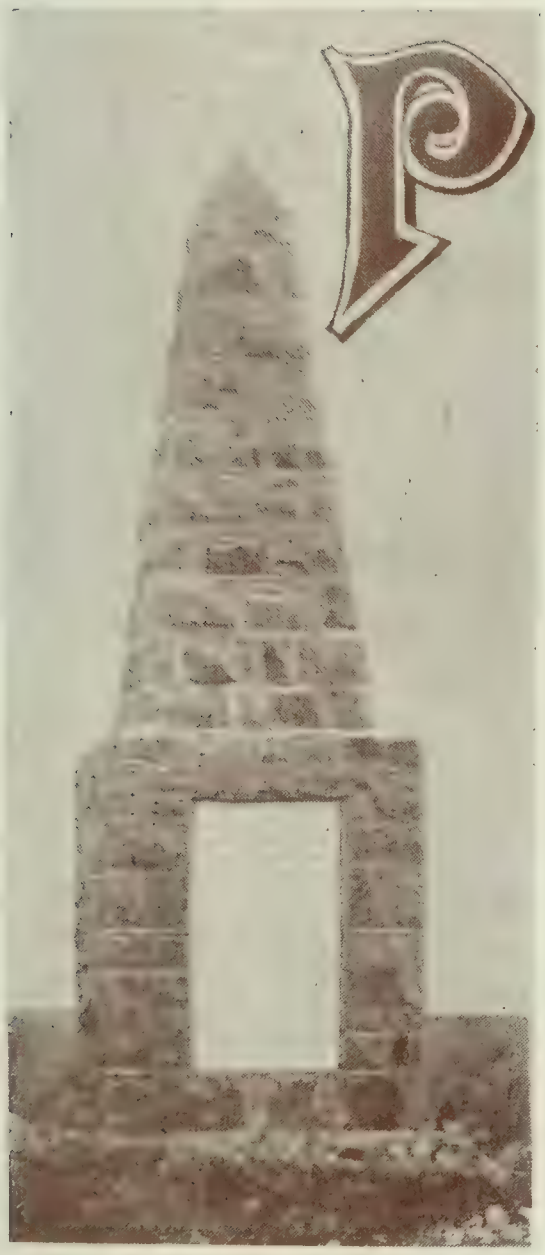


BRITISH AND BOER POSITIONS DURING SIEGE OF LADYSMITH.



HISTORIC LADYSMITH

CHAPTER IX



PRIOR to the siege, which commenced on the 2nd November, 1899, Ladysmith was practically unheard of outside South Africa, but during its 120 days of bombardment it was the very centre of interest and anxious concern in the eyes of the British Empire. However, it may be of interest to refer to its earlier history and to portray, as briefly as possible, in what way it has gradually risen to become the third largest town of the Province, and an important railway centre. The township was established in 1851, and is situated on the Klip River, being surrounded by an irregular circle of hills 30 miles from the Drakensberg. It is named after the wife of Sir Harry Smith, Bart., the then Governor of the Cape. The municipal borough which was formed in 1899 embraces part of the parliamentary constituency of the Klip River division, which is represented by one member for the Union Parliament, and one representative for the Provincial Council. It is situated 189¼ miles from Durban port, 290 miles from Johannesburg, and 36 miles from the Free State boundary. Its first Local Board met in 1882, and by a deed of grant, dated the 9th of May of that year, a piece of ground containing 16,887 acres, 1 rood, 29 perches, was ceded and transferred to the Board and its successors in office, in trust for the inhabitants and owners of property.

The then Governor of the Colony, Sir H. E. Bulwer, shortly afterwards



Ladysmith from Convent Hill. Caesar's Camp in background

visited the village, travelling by means of ox-wagon from Pietermaritzburg. The first valuation of immovable property, in 1883, was £45,668, as compared with a recent valuation of £457,239. The first mention of a railway station occurred in March, 1885, when the then district engineer met the Board in regard to the position of the station.

The population of Ladysmith is 2,500 European and 3,292 coloured people.

An improved system of water supply was discussed, in 1889, to bring in the water from the Klip River by pipes, and was put into effect in 1890, in conjunction with which a reservoir capable of storing 700,000 gallons was built, the cost of the whole work amounting to approximately £25,000. Since 1890 a further sum of £33,000 was expended, and an entirely new weir constructed; also many other improvements, including a high service reservoir which supplies the larger portion of the water required by the railway department.

The streets are laid in the usual Dutch fashion. Murchison Street, the main road, gives access to the chief buildings and other centres of interest. There is a market-place, a portion of which is used as a recreation ground, and also a pavilion.

The public buildings of note are: the Town Hall—erected in 1894—Masonic Hall, Railway Institute, Court House (Ladysmith being the seat of a magistracy for the Klip River division), Post Office, Library and Reading-room, Churches of various denominations, Government and other schools, three good hotels — the "Crown," "Royal," and "Railway" — and a sanitorium. Another important institution is the Convent on the hill overlooking the railway station, and which was used by General Buller as a "Rest House."

The district is principally agricultural, but being the junction for the Harrismith



Town Hall, Ladysmith

and Kroonstad Line (Orange Free State), as well as an important locomotive centre, railway employees account for a fair proportion of the town's population.

Ladysmith is the post-cart town for Dewdrop, Acton Homes, Spion Kop, and Bergville (Upper Tugela). The service is a tri-weekly one (Mondays, Wednesdays, and Fridays), and the fares are 7s. 6d., 12s. 6d., and 17s. 6d., respectively. When the branch line from Ennersdale to Honger's Poort is completed these settlements will be much nearer the railway, and the post-cart service will be removed accordingly.

The Drakensberg Range is of immense scenic grandeur, of absorbingly geological, botanical, and anthropological interest, and offers uncommon opportunities to the sportsman and mountaineer. It is indeed singular that



Murchison Street, Ladysmith



Ladysmith from Cæsar's Camp

until recent times no great effort seems to have been made to reveal the beauties to the world, or even to the people of South Africa. By the wise direction of the Government, however, a special expedition was despatched to these mountain fastnesses, and some very valuable data and photographs have in consequence been secured, forming the subject of a separate chapter.

The Siege

In passing through this quiet place it is difficult to realise that it is the town which so valiantly suffered the numberless privations, and all the ghastly ills of a protracted siege.

The most historic of the many hills around Ladysmith are: Umbulwana, Lombard's Kop, Gun Hill, Pepworth's Hill, Surprise Hill, and Nicholson's Nek, which were occupied by the Boers; and Wagon Hill, Cæsar's Camp, and Observation Hill defended by the British during the Boer investment of the town. Other famous spots in connection with the defence and relief of Ladysmith are: Farquhar's Farm, Rietfontein, Spion Kop, and Vaal Krantz some distance away, and many interior places of much note, are worth a visit. It is not the compiler's intention to again narrate the oft-repeated and exhaustive accounts of the stubborn battles which took place at each of the afore-mentioned places, reference has therefore only been made to them for the information of tourists who visit the battlefield districts and who wish to identify the locality from the text in books which deal specially with the incidents of the late war.

Rietfontein is a farm in the vicinity of Modder Spruit, about seven miles north of Ladysmith. It is notable on account of Sir George White's important skirmish with the Boers on the 24th



Surprise Hill and Nicholson's Nek

October, 1899, four days after the battle of Dundee, and three days after that of Elands Laagte. The platelayer's house in the vicinity was the headquarters of General Joubert during the investiture of Ladysmith.

The action was planned in order to divert the enemy's attention from the East, and to secure the safety of General Yule's column retreating from Dundee. The manœuvre was entirely successful, and the column which numbered some 4,000 reached Ladysmith on the 26th.

FARQUHAR'S FARM, which is to the north-east of the town, will be long



Wagon Hill, Ladysmith



Where the Devons charged at Wagon Hill

present in the memory as the reminder of "Mournful Monday," (30th October, 1899) the day which immediately preceded the investment. The result of this battle (or Lombard's Kop as it is officially set down) is well known. The British troops could gain little advantage, their flanks were endangered, their artillery was inferior in weight and distance, and Ladysmith itself being menaced, General White had no alternative but to retire upon the town.

NICHOLSON'S NEK.—This disaster was the climax to an ill-omened day. Two infantry battalions and a mountain battery, owing to the stampeding of the mules, lost their reserve ammunition and ultimately necessitated their surrender.

UMBULWANA is four miles out, and much visited for its excellent view of the British positions, the several battle grounds, the emplacements of the famous "Long Tom" and other similar guns, the site of the Great Dam, and the Indomba Neutral Camp—the cemetery marking the latter. LOMBARD'S KOP and GUN HILL are near Umbulwana, and are eminent as the elevations upon which the Boer heavy cannon were placed.

GUN HILL is of special interest as the objective of the midnight sortie on the 7th December, 1899, and the destruction of two of the enemy's big guns, a 6-inch Creusôt, and a howitzer. This meritorious exploit was executed by 600 Natal and Imperial Light Horse volunteers, led by Sir Archibald Hunter, without the loss of a man.

SURPRISE HILL, situated to the west of Pepworth's Hill—both of which were occupied by the Boers—was the scene of a similar raid by five companies of the Rifle Brigade, but owing to a defective fuse to the 4·7 howitzer, its disunion was painfully delayed, during which time the raiders were discovered and suffered loss in their retreat.

OBSERVATION HILL and HELPMAKAAR HILL.—Simultaneously with the prodigious attack on Cæsar's Camp and Wagon Hill, on the 6th January,



Klip River, Ladysmith

1900, the Boers also made an assault on the British northern and eastern positions, Observation Hill, and Helpmakaar Hill. As its name denotes, Observation Hill is one of the best eminences for a complete survey of the historic country.

CÆSAR'S CAMP and WAGON HILL are respectively the eastern and western portions of a ridge a few miles south of Ladysmith. Looking from these hills a complete perimeter of fourteen miles, which followed Maiden's Castle, Highlander's Post, Range Post, Rifleman's Post, King's Post, Cove Redoubt, Observation Hill, Gloucester's Post, Cemetery Hill, Helpmakaar Hill (Devonshire Hill) can be traced. From these eminences, too, a good panoramic survey of the town may be taken. 'Bulwana, Lombard's Kop, and Gun Hill, rise grimly on the right, and in the far view Umkolumba Mountain, the British heliograph station during the siege, is discerned. On the reverse side of the ridge, detached hills and great plains will be noticed. The noted Bester's Farm, Spion Kop, and other hills, can also be detected.

Wagon Hill was the key to the British position, and the Boers made two determined assaults upon it, the first on the 9th November, 1899, and the second on the 6th January, 1900; both assaults were, however, repulsed.



Where Col. Dick-Cunyngham fell, Ladysmith



Views of Spion Kop

Col. Dick-Cunyngham, commanding the Gordon Highlanders, fell on this occasion, and a cairn marks the site where he fell on the south side of the road bridge across the Klip River as Wagon Hill is approached.

SPION KOP, or INTABAMNYAMA, is about 18 miles from Ladysmith on the Acton Homes and Bergville Road, and is passed *en route* to the Drakensberg. The journey can be performed by conveyance in three hours, and affords an enjoyable and interesting drive. Wagon Hill, Cæsar's Camp, 'Bulwana, Lombard's Kop, Gun Hill, Nicholson's Nek, and other notable eminences are retained in view for several miles, while the Drakensberg and its famous passes keep always in sight. With the exception of a few insignificant drifts, the route lies across the Great Plain—a huge ant-hilled table-land, incised by spruits, and here and there relieved by mealie plots and their dusky proprietors.



All Saints' Church, Ladysmith

Spion Kop proper (whose summit is nearly 5,000 feet above the sea and about 1,500 feet from the plain below) is composed of two peaks which rise abruptly from the ridge Intabamnyama—a long lofty plateau whose projecting spurs (two of which are the noted Bastion Hill and Three Tree Hill) exposed the British troops to a terrible searching fire from several different directions. From the top of the ridge the whole historic country can be scanned. Looking towards the tortuous Tugela, the three drifts over which the troops were crossed—Potgieter's, Trichardt's, and Munger's; Mount Alice and Zwaartkop where the naval and other guns were placed; Spearman's Farm where the British forces were encamped before and after Spion Kop and Vaal Krantz; the routes of advance; the direction of the various attacks (from the 16th to the 25th January, 1900) and the gigantic retirement across the river again (by the 27th) of over 20,000 men, horses, guns, and stores without the loss of a man, can all be pointed out.

There are several monuments on Spion Kop erected in honour of the dead. A twisted iron cross shows the spot where the courageous Major-General Woodgate fell mortally wounded.

A good riding road has now been made to the top of Spion Kop.

VAAL KRANTZ, the scene of the third valiant, but unsuccessful attempt to secure an entrance to Ladysmith is a rocky ridge standing between the Doorn Kloof and Spion Kop ranges, to the south-east of the latter. It is observed in the distance on the way to Spion Kop. The movements which commenced on the 4th February, and terminated after the capture of the Vaal Krantz ridge on the 7th, produced one of the most furious cannonading concerts during the campaign.

INDOMBA CEMETERY, containing 700 graves, six miles out, has many visitors, while the hills not specially described, which formed the British perimeter of defence, and those occupied by the opposing army and their big guns, as well as Sir George White's headquarters, the church All Saints' with its exquisite memorial windows and tablets, Town Hall, Royal Hotel, and other structures which suffered damage to a lesser or greater extent during the bombardment, all share the tourist's attention.

Visitors who desire to go over the battle-fields may hire conveyances or saddle ponies, and also secure the services of well-informed guides at the several hotels and livery stables in the town.

Tourists and military representatives of various nations throng from all parts of the world to visit this historical town and its neighbouring battle-fields.



Ladysmith Town Cemetery



Railway Station, Ladysmith

LADYSMITH TO CHARLESTOWN

The journey beyond the historic town loses but little of the interest attaching to previous districts. Almost every knoll, and hill, and mountain has a history, almost every acre has received the tramp of besieger and besieged. Between Ladysmith and Elandslaagte we can review any of the kopjes and krantzes which constituted vantage points and cover during the investment of Ladysmith. In labouring up the steep gradient, and in passing Orange Free State Junction, we have ample leisure to view such notable hills as Umbulwana, with Lombard's Kop and Gun Hill in close proximity. Pepworth, formerly Modder Spruit Station, gives the sight of the Hoofd Laager, Joubert's main encampment during the siege.

Rietfontein and Farquhar's Farm are within a few miles' radius, while Tinta Inyoni and Pepworth's Hill may be seen by looking back on the left-hand side of the train.

ELANDSLAAGTE is the beginning of the "black country." Beside the station is a good hotel; to the left will be noticed the headgear of an important mine, and behind it

Altitude - - 3614 feet.
Distance - - 206 miles.



All Saints' Church (Interior), Ladysmith



Biggarsberg Front

stands Jonono's Kop. About a mile at the back of the station will be seen an insignificant looking ridge, to the immediate north of which is Conical Hill. The district of Elandslaagte will afford great interest to the tourist, and the altitude is a guarantee of its healthiness. Every facility for visiting the battle fields in the vicinity can be obtained at the hotel

WESSELS NEK is about four miles on the north side of the Sunday's River, and on the left will be observed Matiwana. There are several coal mines in the vicinity of Wessel's Nek, but otherwise the place is not remarkable. There is an hotel and also a store opposite the station.

Altitude 3770 feet.
Distance 214 miles.

WASCHBANK, the next station, is of a little greater distinction. The Biggarsberg Range cross the railway line at right angles some distance ahead. Indumeni, the chief peak, 7,200 feet high, is detected to the right, and Hlatikulu another noted eminence can also be descried lifting its head above the rest. Coal mining and farming are in operation. An hotel will be found close to the station. The country between Waschbank and Glencoe Junction, especially around Wallsend Staff Station, is pretty, and in the summer time the yellow blossom of the mimosa tree imparts a bright and agreeable piquancy to the severe undulation of the landscape.

Altitude 3526 feet.
Distance 218 miles.

GLENCOE JUNCTION is one of the busiest traffic points on the system, and the bulk of the Province's total coal output, about 2,000,000 tons annually, passes through this station. This

Altitude - - 4302 feet.
Distance - - 231 miles.



Coal Mine



Glencoe Junction

is also the junction of the Dundee-Vryheid Branch Line, along which connecting trains run to connect with the main line service. Refreshments and meals are obtainable at all hours at well-appointed rooms on the station, in addition to which there is a store and hotel within a short distance.

Continuing our journey, and passing onwards to Charlestown, the town of DUNDEE looms clearly in the extreme bright distance with the Impati and Talana Mountains soaring above it. The latter hill is denoted by the plantation at its base.

HATTING SPRUIT is a division of the extensive coalfields. Coal is to be found all over the district. A private line, four miles long, branches to the right of this station running to the Navigation and St. George's Collieries, and another line two miles long leading to the Glencoe Collieries. Stock farming is also carried on in the vicinity as well as the cultivation of maize and potatoes.

Aititude - - 4298 feet.
Distance - - 239 miles.



Graves alongside Railway Line at Glencoe Junction

DANNHAUSER is the centre of a large stock, agricultural, and coal district.

Altitude - 4129 feet
Distance - 246 miles.

Here was placed the first of the block houses, 14 of which were built in the vicinity of the railway line between this point and the Transvaal border.

The collieries of the Durban Navigation and Natal Cambrian Companies are near Dannhauser. At both the above stations there is hotel accommodation.

ALCOCK'S SPRUIT.—Large stone and ballast quarries are located here. The

Altitude - 3920 feet
Distance - 255 miles.

stone used in some of the most important buildings in the Province has been taken from these quarries.

INGAGANE, the succeeding station, has much to commend itself as a holiday

Altitude - - 3900 feet.
Distance - - 260 miles.

resort. It is only eight miles from Newcastle. The climate is particularly fine, and it has adjacent many places of attraction to the photographer, scientist, and angler. It is also of much historic interest. The well-known Tiger's Kloof is about a mile walk from the station, facing Rooi Pynt, where some years ago Mr. Rider Haggard, the famous novelist, resided. The line of the great Drakensberg, terminating in the famous peaks of Inkwelo, Majuba, and Pogwana, forms a beautiful view.

INGAGANE is also a notable kafir district, and the native may here be studied in his dual state—heathen and christianised.

NEWCASTLE, on the Incandu, is a municipal town, and from a picturesque

Altitude - - 3893 feet.
Distance - - 268½ miles.

and residential standpoint is one of the pleasantest in the province, the climate being most invigorating. The population is about 1,166 Europeans and 1,000 natives.

The rateable value of the property in the borough is over £300,000 ; the general rate 1¾d., and the water rate one halfpenny in the pound. The streets are well kept, the sanitary arrangements are satisfactory, and the water supply is unfailing and excellent. Newcastle possesses a Town Hall with clock and chimes, also municipal offices and ante-rooms. The main hall will hold 500 people. This structure which was erected at a cost of £6,000 to commemorate the Diamond Jubilee, was opened in July, 1899. There are many strongly-built, good-looking buildings, and accommodation for visitors is met by three



Newcastle



Town Hall, Newcastle

comfortable hotels and several boarding-houses. The principal societies and institutions are : the Agricultural Society, library and reading-room, Literary and Dramatic Society, Masonic and other lodges, several sporting clubs, and two rifle associations. The Anglican, Roman Catholic, Wesleyan, Presbyterian, and Dutch Reformed bodies have places of worship here, while the scholastic establishments include a Government school and Dominican Convent. A weekly newspaper is printed in Newcastle called the *Newcastle Advertiser*.

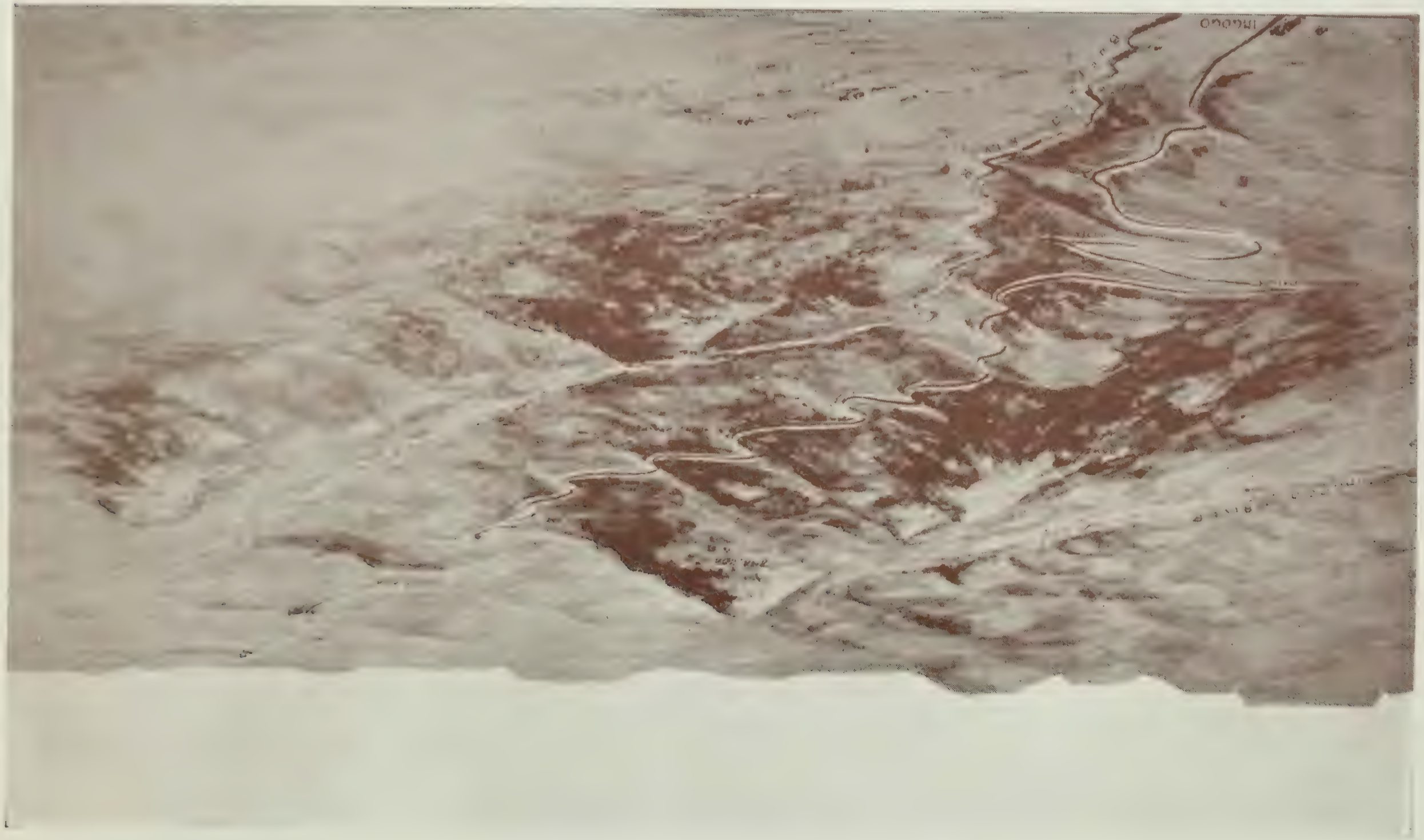
The principal products of the town and neighbourhood are : wool, coal, tobacco, and maize. There are several coal mines in the vicinity, and with the existing railway facilities, the natural expansion of trade, and the good seams which have been recently opened up, the output should increase considerably. Fort Amiel looks down upon Newcastle from the north-west.

On the occupation of Newcastle by the Boers during the war they christened the town "Viljoensdorp," until the re-occupation by the British on the 18th May, 1900, when the town was strongly garrisoned, and became the headquarters of the Army in Natal during the latter stages of the war. There is a refreshment room in the railway station.

INGOGO recalls painful recollections of past years, memories of martial blunders and political mistakes, but we can only hope that the consummation of Union will obliterate all unhappy episodes associated with this district.

Altitude -	- 4064 feet.
Distance -	- 283 miles.

Standing on the platform of this station the traveller will see three huge over-awing mountains. The centre one is flat-topped and the supporters are peaked. They are Inkwelo, 6,872 feet high ; the world-known Amajuba, 7,000 feet high ; and Pogwana about the same altitude.


Inkoko



Horse Shoe Curve, Ingogo

The Ingogo district is replete with war records of both campaigns. To the north-west of the station are the sites of the three 1881 engagements—Lang's Nek, Ingogo Heights (Schains Hoogte), and Majuba. There is much for the tourist to see in this famous mountain wedge, and to those who prefer to start from the Natal side it will be a convenience to know that an hotel is situated on the main road towards Botha's Pass, two miles from the station. Not only are the mountains a special attraction to the tourist, but the Buffalo River, which formerly divided Natal from the Transvaal on the East, and flows through a wild and tangled country, is peculiarly interesting to the lover of solitude and to the portrayer of weird and lonely scenes. As the train advances from Ingogo to surmount the heights, about 200 yards beyond the



Majuba

station, on the left will be observed a narrow plain, and an isolated hill shaped like a dunce's cap. It was around this hill that the attacking forces worked towards Botha's Pass and Alleman's Nek.

The method of negotiating the Ingogo Heights is interesting and unique. Instead of tunnelling, which would be expensive, the rails are laid on the banks of the mountain in zig-zags, and by twice reversing the engine, first at Hoscobello, and then at Inkwelo Staff stations, the train is raised 1,331 feet. On reaching this station a delightful view of the country below, and the railway track with its horseshoe curve over the bridges known as "The Three Sisters" is obtained. Shortly afterwards the train winds round the base of Inkwelo, passing on the left the "1881" cemetery, marked by a solitary tree, where rests General Colley and a great part of the slain in the three engagements on Lang's Nek, Ingogo Heights, and Majuba.



Military Cemetery at Mount Prospect, where General Sir George Colley is buried; Majuba in background

MOUNT PROSPECT then comes into sight. Not far away, at the foot of Majuba, stands O'Neill's house, where the Peace Treaty of 1881 was signed. After rounding Majuba, General Colley's resting-place can be more distinctly seen on the right.

Altitude - - 4983 feet.
Distance - - 296 miles.

Just before entering Lang's Nek tunnel, the site of the disaster may be observed on the right-hand side. After passing through the tunnel (2,213 feet long—both ends of which were shattered by the enemy in 1900) the Lang's Nek stopping place is noticed. Tourists may halt here in order to visit the historic spots referred to.

CHARLESTOWN, the border station, is shortly afterwards reached. Before the line was continued into the Transvaal, and to the Rand, in 1895, Charlestown was the terminus of railway

Altitude - - 5386 feet.
Distance - - 304 miles.



Lang's Nek Tunnel

communication, and the point where the ox-wagon and the train exchanged loads. On the 31st May, 1910, Charlestown ceased to be an exchange station as between one railway administration and another, and from that day the railways of South Africa were united and controlled by a single administration.

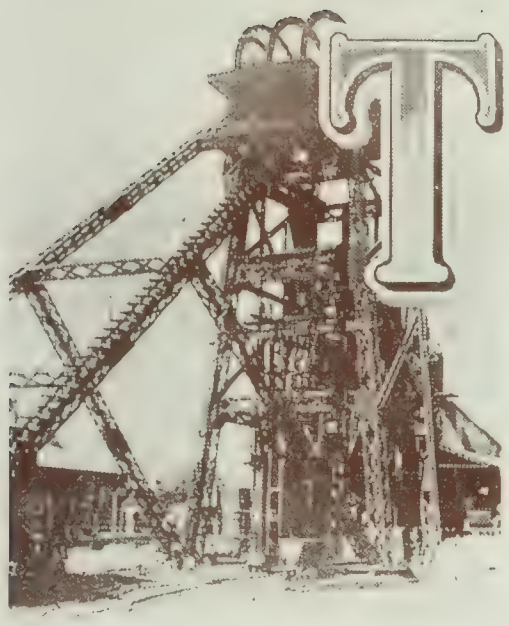
The station premises are commodious, and are provided with a good refreshment room for passengers using local trains. The town enjoys a magnificent climate from its high situation, and is an ideal resort. It has two hotels—the "Belgrave" and the "Royal." Presbyterian and Wesleyan churches, social and rifle clubs, and benefit societies, etc., are established here.

For the purposes of a healthy holiday, and an enjoyable and interesting tour, Charlestown is no doubt one of the best centres to work from. It is within walking, riding, or driving distance of such historic eminences as Majuba and Lang's Nek, some four miles distant; Pogwana five miles, and Alleman's Nek about nine miles away. These are attractive to the general tourist by reason of their historic associations, while also from Majuba an unrivalled view can be obtained embracing five countries: Natal, Zululand, Transvaal, Orange Free State, and Basutoland, and the picturesque Buffalo Valley, already mentioned, is not far from Charlestown. Having reached the last station of the Natal section of the railway line we proceed to the territory of the Transvaal towards the Rand.



TOWARDS THE RAND

CHAPTER X.



THE distance to the border is two-and-a-quarter miles, and the divisional line between Natal and the Transvaal consists simply of a barbed-wire fence. At a spruit in the vicinity, which was formerly also regarded as a sort of boundary, Lord (then Sir Henry) Loch met Mr. Kruger in conference on the Swaziland question. After passing the spruit the train leaves Natal at the furthest limit of its north-western frontier, and enters the Transvaal. A quarter of a mile beyond the border the town of Volksrust is reached, which although without any pretentious buildings is none the less an interesting place.

Altitude - - 5433 feet.
Distance - - 308 miles.

VOLKSRUST.—The town is small, with a population of nearly 2,000 white inhabitants and 1,000 natives. The environs of the station are well-kept, also the gardens and surroundings of the neighbouring cottages. The town is nicely laid out with up-to-date streets, and has a good water supply which is carried by gravitation eleven miles distant. A very good view of the surrounding country is obtained from the station. The hotel accommodation is ample if not equal in architectural accomplishments to that of larger towns, and the fare should satisfy the most epicurean taste. It is at once historical and the centre of a big agricultural district; the annual show which is held here, known as the Wakkerstroom Show, is one of the best in the country, and the visitor thereto is at once impressed with the potentialities of the district from a farming standpoint. It is a splendid sheep-rearing country, and is equally good for cattle. There is an extensive business in wool, and while the number of bales dealt with immediately



Volksrust Railway Station

prior to 1899 was about 5,000, the number last season was 9,500, and in 1909, 11,000 bales, which is an evidence that the farmers in this district are both enterprising and energetic, and that the natural advantages of the district are being carefully availed of and appreciated. With the exception of the stone monument erected to the memory of those who fell in the vicinity in the War of 1881 there are no public memorials.

The country in summer is covered with grass, in many spots similar to esparto, and the appearance of the vegetation in that season, when thunder-showers are frequent, is by no means unattractive.

The hill of Majuba can be seen very clearly from the line approaching the town and from the railway station. In the stirring times of 1881, and later in 1899, the town was the scene of much activity owing to its geographical position at the entrance to the colony of Natal. In September, 1899, it was made the principal base for the Boer invasion in Natal, and it was always regarded as a point of considerable strategic importance, in consequence it formed one of General Buller's principal objectives in his movements after the relief of Ladysmith. The contrast between the country which has been traversed before reaching Volksrust, and that which intervenes between Johannesburg and Pretoria, is most remarkable. The difference which immediately strikes one is perceptible, not merely in the geographical features of the country, but in the vegetation and in the atmosphere.

Though the effect produced, at a cursory glance over the land, is that of a level like a billiard table, appearances in this, as in other things, are deceptive. At intervals there are to be found huge ravines—nothing on



Volksrust

the surface indicative of their presence in which armies of 20,000 men and more might be swallowed up with ease. To the earlier settlers, who were so well acquainted with every inch of their native country, these donga or ravines, proved of the utmost use in war. They have been employed as fastnesses, from which the guerillas could sally forth with ease on a foray, and return without leaving a trace of their movements.

The climate here, as in all parts of the "high veld" of the Transvaal, is extremely bracing, and the breezy uplands which the railway traverses are among the best parts of the world for people who suffer from pulmonary complaints. In fact for the most part the climate of the Transvaal is probably one of the heathiest known, but there are certain districts where malarial fever is still prevalent, although rapid strides have been made in recent years to combat the evil, and it is gratifying to relate that these efforts have met with a great deal of success; so much so that in many parts where the effects were felt most there is a striking absence of fever patients, and where persons have been attacked the effects are comparatively slight.

The average height of this part of the land is from 5,000 to 6,000 feet above sea-level, and at one point, Klipstapel, in the Ermelo district, the country rises without any steep gradations to 7,000 feet.

In former days this country, now so attractive and well-dowered was a *terra incognita* to travellers. No tourists cared to explore the land in the days of its domination by the Zulus and their fierce offshoot—the Matabele, until the pioneer Boers had cleared the country of their savage enemies. In the Transvaal the Boers first of all settled in the south-western and central districts. Potchefstroom, Zeerust, Rustenburg, and Pretoria, and for a long time the Eastern Transvaal was neglected. Gradually it became habitable and occupied to a small extent, and little wayside stations on the road from Natal sprang up. The usual mode of conveyance was by ox-wagon, which gave way to coaches and post-carts, as Barberton, and latterly Johannesburg, became centres of attraction. The journey from Natal in the olden days is admirably described by the gifted South African novelist, Mrs. Carey Hobson, in her book, "At Home in the Transvaal," which vividly portrays Transvaal life in the days of the first Boer War (1880-1881). The days of romance are over now, but the journey, if more prosaic, is very comfortable and expeditious.

The Vaal River is crossed for the first time at Standerton, where the banks are steep and precipitous, and it is by no means the deep and placid stream that is usual at Vereeniging and Klerksdorp.

STANDERTON is typical of the South African country town we have been accustomed to associate with the districts beyond the industrial centres. It is in the centre of a good agricultural district which, with its natural resources and the advancement made in the operations of recent years, is fast making its influence felt, so that at no very distant date one may opine that the town will extend its environments

Altitude - - 5025 feet.
Distance - - 369 miles.



Standerton

considerably and become not only the market town of a thriving farming industry but one of the principal industrial centres of the Eastern Transvaal. In the season of 1908 and 1909 respectively, 6,000 bales of wool were despatched from Standerton railway station. The town, which in normal times has a population of 1,300 whites, has played its part in the history of the Transvaal. It stood a protracted siege in the Boer War of 1881, being gallantly held for Great Britain by Captain Carl von Brandis. During the war which began in 1899, Standerton was again prominent, as in the course of the operations in the Eastern Transvaal it was occupied by General Buller, and constituted an important base of operations. In the future, Standerton is destined to play a large part in the economic history of the Transvaal, for there is no doubt that the district is peculiarly fertile, has fine pasturage for sheep and cattle, and its mineral possibilities—which have been investigated—are great.

After the train leaves Standerton the country undergoes a great change in its natural features. It is, in the first place, diversified by numerous ridges which intersect and give the landscape a broken appearance. At intervals there are big hills, for the most part round or oval-shaped, of basalt and sandstone, and these are very similar in appearance to the hills seen later on near Johannesburg, although the Heidelberg Hills—some of which might almost be termed mountains—are more rugged. The nature of the vegetation, likewise, changes somewhat, there is still plenty of grass, but it is interspersed with low brushwood.

HEIDELBERG.—The approach to Heidelberg is attractive, and the town, which may be viewed as a whole from the train, a few miles before it is reached, presents a most pleasing

Altitude -	- 5029 feet.
Distance	- 441 miles.



Heidelberg

picture and the steeple of its ornate church may be seen for many miles around. The town is very pleasant in spring or summer, being "bosomed high in tufted trees." It has in its time also played an important part in Transvaal history. In the Boer War of 1881 it became the headquarters of the Boer Provisional Government, or Triumvirate, which consisted of Kruger, Joubert, and Pretorius.

It was here, on December 16th, 1880, that the South African Republic was formally proclaimed, in a long proclamation, containing a summary of the events of the few preceding years, and declaring the arrangements the malcontents were willing to make with the British authorities. From Heidelberg was detached the force which overwhelmed a detachment of the 94th Regiment, at Bronkhorst Spruit, on the road between Pretoria and Middelburg, on December 20th, 1880. One of the first acts of the Triumvirate was to despatch a large force from Heidelberg with orders to advance into Natal territory and seize Lang's Nek.

In later years, the town and district of Heidelberg grew considerably, the district is not merely fertile, but abounds in gold-bearing reefs, the best known is the "Nigel." Under the Boer Government, the Witwatersrand Gold Fields were officially included in the area of the district of Heidelberg.

The locality is interesting, from an antiquarian point of view, in that it was the principal seat of Moselikatse (or "Path of Blood"), the famous "Lion of the North," and founder of the Matabele nation, the traces of whose chief kraal are still to be seen.

Heidelberg may be recommended as a pleasant health resort. It boasts of some excellent hotels, stores, and private houses. Its population is about 3,000 to 3,500.

After leaving Heidelberg, the railway train approaches the upland downs of Witwatersrand. The first indication of proximity to a mining centre is afforded by a glimpse, on the sky-line, of the gaunt head-gear of the mines on the East Rand, near Boksburg. Suddenly there is a wonderful metamorphosis, and the train leaves the quiet country-side, descending upon a forest of chimneys and staging, which indicates the very "hub" of the mining industry.

To the traveller visiting the Rand for the first time and coming from Natal the first introduction to European conditions is the township of Elsburg; which lies on the right; about a mile further on the visitor passes through the beautiful suburb of Parkhill, and emerging from this suburb a magnificent view of the Victoria Lake and the Victoria Falls Power Company's works is obtained—these are on the left—the lake is by far the largest sheet of water on the Rand, being about four miles in circumference. The generating station is the largest in South Africa, and cost over £600,000 to erect. A few minutes afterwards the visitor arrives in Germiston proper.

o



Germiston Railway Station

Altitude	5472 feet.
Distance	473 miles.

GERMISTON is the principal railway junction of the Transvaal, through which, in ordinary times, upwards of 500 trains run daily. Southwards from Germiston, a line of 1,000 miles in length runs through the Orange Free State to the Cape; a further line in a south-westwards direction to Johannesburg, another northwards to Pretoria, and one eastwards to Boksburg, Bethel, and Ermelo.

The station possesses a comfortable buffet. The municipal area is approximately 26 square miles, and the town has a white population of about 17,000, and coloured about 40,000. Boksburg lies on the eastern and Johannesburg on the western boundary.

The name "Germiston" is taken from the farm Germiston, near Glasgow, where Mr. Jack, who laid out the township, was born.

In 1903, Germiston was constituted a municipality under the Municipal Corporations Ordinance, 1903. The municipal valuation is £2,520,000. The two main thoroughfares are President and Knox streets, but owing to the rapid growth of the town a large number of new roads have recently been proclaimed business streets. The total mileage of streets in the townships of Germiston, Germiston West, East and North, and Georgetown, is 46·59. The principal buildings are—the municipal offices, the law courts, Central government schools, Presbyterian Church, and Standard Bank; there are also some very large, handsome business structures.

Germiston in addition to being the most important railway junction in South Africa is the centre of the deep mining propositions on the Rand. The town is expanding rapidly, and there can be no doubt that within a few years it will rank next to Johannesburg in commercial importance.

The Town Council has at present under consideration the initiation of an up-to-date tramway system, which scheme it is hoped will within a year or two be realised.

To Johannesburg the train runs through a labyrinth of mines and mining works, which afford a novel spectacle not to be seen elsewhere. The effect produced by the numerous reservoirs and glistening tailings-heaps is not



Transvaal Gold Mine

1.—Incline to Rock Crusher 2.—Headgear 3.—Waste Dump



Victoria Lake

unpicturesque. The more important mines can be reached by train, in fact by alighting from one or other of the local stations between Johannesburg and Germiston it is possible to reach any of the mines in that area without difficulty. The through long distance trains do not stop at these smaller stations, and it is only by changing at Germiston that a passenger can reach them in a journey from Natal. On the journey from Germiston to Park, some of the suburbs of Johannesburg can be seen, the principal being those in the vicinity of George Goch and Denver stations. Jeppestown, one of the busiest passenger stations in Johannesburg, is next seen. It was formerly a favourite suburban resort, but the population of Johannesburg has grown to such an extent that the municipal area is now 81¾ square miles.

With the increase of population and growth of Johannesburg there has been a general desire to leave the environs of the business thoroughfares of the city for the more secluded parts, where the whirl and excitement of the business life can be forgotten for a brief spell in the quietude of the home life. As a result new suburbs have sprung into being and Jeppe is no longer the fashion, although it is doubtless one of the busiest parts, and the station is the one which many of the citizens still use in passing to reach the newer suburbs further on.

Next comes Doornfontein, which was for many years pre-eminent as the most fashionable suburb of Johannesburg, though it has been shorn of much of its glory by the more recently created suburbs such as Parktown, Yeoville, Kensington, and others. Doornfontein lies in the beautiful Bezuidenhout's valley, which charms the eye with its avenues of magnificent trees.



Country Club, Johannesburg



Park Station, Johannesburg

Leaving Doornfontein the train proceeds through a long cutting and finally draws up at Park Station, the principal passenger station of Johannesburg. On the north side of Park Station are the spacious recreation grounds of the Wanderers' Club, while on the south the station opens directly upon the town and is faced immediately by the handsome railway offices of the South African Railways, which at some future date may be the front entrance to the Johannesburg principal station.

JOHANNESBURG.—Leaving Park Railway Station a drive of three or four minutes along Eloff Street, or Rissik Street, brings one past fashionable Pritchard Street (the Regent Street of the Rand) to the very heart of the town, the Market Square. A glance at the

Altitude	- 5689 feet.
Distance	- 183 miles.



Headquarter Offices, South African Railways, Johannesburg

Post Office, and surrounding buildings—many six, seven and eight storeys in height—serves to indicate the wonderful advance made by Johannesburg during the past five or six years, and its earnest of future prosperity.

After leaving the Market Square one comes to Commissioner Street, in and near which are the offices of all the great financiers, and in the immediate vicinity that centre of ceaseless excitement, the Stock Exchange. Everything is redolent of the great industry—gold. It will, therefore, be appropriate to give a brief sketch of the history of the mining industry in the Transvaal.

The Boers were always a pastoral people, and their sole object in settling in the Transvaal was to acquire homes for themselves and plenty of room for their flocks and herds. The desire to found a purely pastoral community was, in the first place, responsible for the aversion the Boers had to the incoming of intrusive foreigners, on the look-out for precious metal. Thus, when gold was first discovered in 1854, the Government of the day, fearing a foreign influx, prohibited prospecting under heavy penalties.

Herr Carl Mauch, a distinguished German traveller, discovered in 1867, auriferous formations in the northern districts of the country. The Government shortly afterwards withdrew its prohibition, and in 1872 the first Gold Laws were published, and rewards offered for the discovery of payable fields. Alluvial gold was found near Lydenburg, and a considerable number of nuggets unearthed, some scaling up to 215 ounces.

In 1882 attention was directed to the DE KAAP VALLEY, where a large block of farms was thrown open. In 1886 the discovery of the Sheba Mine



Pritchard Street, Johannesburg

created a fever of excitement. A limited liability company was formed, and men in hot haste began to flock from all parts of the country. At one time the £1 shares of the Sheba Company rose to £100. In 1887 over 10,000 persons were in the district, and the town of Barberton was built. Innumerable companies were floated, and the wildest schemes inaugurated. This, of course, resulted in a speedy collapse, and in a very short time only the permanent and well-developed reefs were kept open. At this period the output of Barberton was 70,000 ounces per annum. Its production for the year 1909 was 89,760 ounces, valued at £314,792.

The WITWATERSRAND was discovered in 1885. Prior to this, properties on the Rand were of comparatively little value, ranging in price from £200 to £500, but as capitalists appeared they rose in price, and in a few months changed hands at sums varying from £7,000 to £70,000.

On the 20th September, 1886, the Rand was proclaimed a public goldfield, and Captain Von Brandis appointed first Commissioner. A Government sale of building stands, each of which measured 50 feet square, was held, the standard price being about £200 each. Some of these have since realised £20,000 to £40,000. Good buildings soon began to appear, and the Johannesburg of to-day rose as a natural consequence, resulting from the continually increasing output of gold, statistics of which are here given :

WITWATERSRAND GOLD PRODUCTION FROM MAY, 1887, TO DECEMBER, 1909.

Year.	*Fine Gold. Ozs.*	*Value. £*
1887	19,080	81,045
1888	171,789	729,715
1889	306,167	1,300,514
1890	408,569	1,735,491
1891	601,810	2,556,328
1892	1,011,743	4,297,610
1893	1,221,171	5,187,206
1894	1,639,252	6,963,100
1895	1,845,875	7,840,779
1896	1,851,422	7,864,341
1897	2,491,593	10,583,616
1898	3,564,581	15,141,376
1899	3,317,857	14,093,363
*1900	*(see below)*	
1901	238,877	1,014,687
1902	1,690,096	7,179,074
1903	2,859,482	12,146,307
1904	3,653,794	15,520,329
1905	4,706,433	19,991,658
1906	5,559,534	23,615,400
1907	6,220,227	26,421,837
1908	6,782,538	28,810,393
1909	7,039,136	29,900,359
TOTALS	57,201,026	242,974,528
Add :		
Estimated unrecorded output for 1887 to 1889 inclusive	34,607	147,000
*Undeclared output Oct., 1899, to May, 1900, inclusive	584,841	2,484,241
Amount won 1904 but undeclared	4,447	18,890
GRAND TOTALS	57,824,921	245,624,659



Market Square, Johannesburg

The total output of gold from the combined mines of the Transvaal for 1898 was valued at £16,240,630, and in 1908, £29,986,469; employing in 1908, 18,434 white men, 150,317 natives, and 21,027 Chinese.

The population of Johannesburg just prior to the War was set down variously at between 100,000 and 120,000, and to-day there are nearly 200,000, including Europeans and natives. It is difficult to make a correct estimate, as the floating element is great, but the population is made up principally of whites, and possesses amongst its numbers some of the smartest business men in the world.

The cost of living in Johannesburg, at one time monstrous, is now reduced to more reasonable limits, although house rents are still high.

The town was once, before the introduction of any system of sanitation, unhealthy in the extreme, but more modern methods have remedied this evil, and Johannesburg is now far healthier than many European cities, and its elevation, 5,735 feet above the sea level, at once bespeaks its invigorating climate. The result is that people, on the average, lead a more active life, and work harder than they do elsewhere. This hard work demands a compensating amount of recreation, which is afforded by numerous sporting clubs of all kinds, and up-to-date theatres and music-halls. Social life in Johannesburg is very pleasant. The keenest interest is taken in politics and other contemporary movements. Churches connected with almost all



2



3



1.—Post Office 2.—University College 3.—Stock Exchange

Johannesburg

denominations are to be found. There are several excellent newspapers issued daily in Johannesburg : *The Star*, *Transvaal Leader*, and *Rand Daily Mail*. The *Transvaal Critic*, the *Sunday Times* and *Sunday News* are weekly publications.

The clubs include the following :

SPORTING CLUBS

Belgravia Lawn Tennis Club
Berea Lawn Tennis Club
S.A.R. Amateur Athletic Association
Heronmere Golf Club
Johannesburg Bowling Club
Johannesburg District Football Association
Johannesburg Golf Club
Johannesburg Harriers and Athletic Club
Johannesburg Pony and Galloway Handicap
Johannesburg Turf Club
Kensington Golf Club
Rand Polo Club
Rand Poultry Club
Rand Tattersall's Club
South African Cricket Association
South African Lawn Tennis Union
Transvaal Amateur Swimming Association
Transvaal Amateur Athletic Association
Transvaal Automobile Club
Turffontein Golf Club
Wanderers' Club (Sporting and Social)

SOCIAL CLUBS

Athenæum Club
Cornish Club
Country Club
French Club
Johannesburg Club
Irish Club
German Club
New Club
Rand Club
Wanderers' Club
Union Club

The history of Johannesburg during the past decade is part of the history of the British Empire, and does not need lengthy discussion in this place. In December, 1895, came the Jameson Raid, which was preceded by the departure for the coast towns of a large number of the inhabitants. After the Raid came the trial of the Reform Prisoners, four of whom were sentenced to death, and the rest to varying terms of imprisonment. Then followed a long period of depression. The hopes of the people were raised by the appointment, in 1897, of an Industrial Commission to enquire into the commercial grievance of the Uitlanders, but the labours of that Commission were stultified by the action of the Transvaal Government. In 1898 a vigorous agitation against the oppressive rule of the Kruger clique began, and resulted in a great demonstration on the shooting, in December, 1898, of a subject named Edgar by a Johannesburg policeman. During the year 1899 great mass meetings were held by the Uitlanders, and finally the Boer Government broke off the negotiations consequent upon the Bloemfontein Conference, and issued its ultimatum to Great Britain. During the War many of the Johannesburgers fought bravely, principally in the Imperial Light Horse and South African Light Horse, and showed that the inhabitants of the town were fully capable of self-sacrifice, and of rising merely above material considerations.



Union Buildings, Pretoria

PRETORIA, the Administrative Capital of South Africa, is situated about thirty-five miles north-east by north of Johannesburg, and covers an area of seven square miles—561 acres. On leaving the latter, the line traverses the town for some distance, and the observer is impressed with the extent of tree-planting which has been carried out. For many miles a succession of young forests can be seen, and in fact the greater part of the route is enlivened and beautified by shrubberies.

Altitude	- 4471 feet.
Distance -	- 511 miles.



Government Buildings, Pretoria

The town of Pretoria is situated in a circle of hills, and may fairly be described as one of the prettiest of the interior towns of South Africa. Viewed from the top of any one of the surrounding hills during the summer season, the place has the appearance of a huge bouquet of flowers, and its many fine buildings are bowered with lofty trees. The centre portion of the town has a cluster of buildings which would be no discredit to a European capital. The former Raadzaal, or Parliament House, is the principal of these—a truly palatial building, erected at a cost of £138,000. Facing it is another magnificent erection, the new Law Courts, or Palace of Justice. The new Post Office buildings are also in the square.



Supreme Court, Pretoria

The two former buildings, as well as many others in the town, were utilised by the British forces, first as hospitals, and afterwards as staff and departmental offices. The other buildings in the vicinity are those of the National Bank, to which is attached the Mint. Other fine buildings in Pretoria include—the Union Government buildings, designed by Mr. Herbert Baker; the new railway station, and the Transvaal University College, all in course of construction, while it is also proposed to build a museum and library.

From this point streets diverge in all directions. Wherever the eye rests fine buildings can be seen, and the business life of the place is of an advanced and high-class description.

The population before the War was about 25,000 persons, at the end of



Hoch & Drift, Pretoria

1907, 36,700—half of whom are coloured. There is no lack of the modern conveniences of life, and the tourist who visits the Government capital will be rewarded for the journey.

Pretoria has always been famous in the internal history of the Transvaal, and the diplomatic history of South Africa generally, as the political capital of the country. During the War of 1881 it formed the headquarters of the British troops, and endured a protracted siege. As the seat of Government it was always prominent in Uitlander eyes as the place to which resort must be had when Johannesburg wished any of its numerous grievances remedied. It will grow in importance from an industrial point of view, as there is much gold, iron, and other minerals in the district. Diamond mining is already a local industry of no mean importance, and will, doubtless, improve in the future. The district is exceedingly fertile, and offers great possibilities to agriculturists.

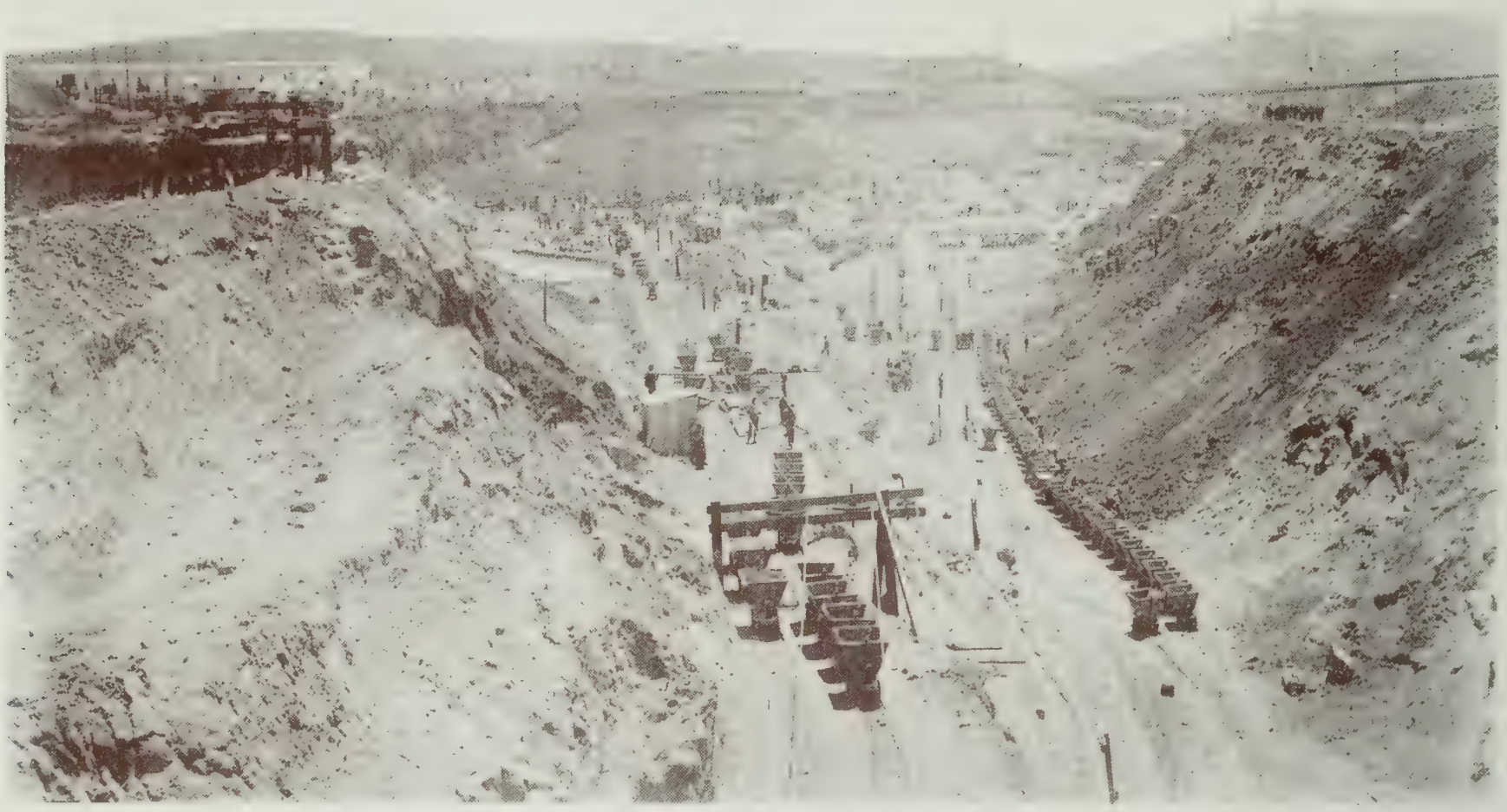
Pretoria "Where to Go"

There are quite a number of beauty spots and places of interest to visit around Pretoria, both near the town and on the Hennops and Crocodile Rivers, which are easy of access by train and road. Amongst the more popular and interesting of these are :—

The Wonderboom, which grows on the northern slope of the Magaliesberg, five miles from town by road or motor train. The approach to the tree is through the picturesque and rocky Wonderboom Poort, along which the Aapies River flows through the mountain range. The poort and tree are well-known picnic places for Pretorians, and there is a store and house of refreshment at the entrance to the poort. The tree may be reached by road or motor train to Wonderboom Station.

The Fountains Valley and Gardens, where the Aapies River rises from the dolomite, are situate 2½ miles to the south of Pretoria and may be reached by road or train. A 'bus also runs at intervals on Sundays.

Irene, situated on the high veld, about eleven miles from Pretoria on the Johannesburg



Premier Diamond Mine (Cullinan), near Pretoria

line, is a favourite spot for picnics and holidays. The Hennop River runs close to the railway here, and heavy bush marks its path through the veld. The Government Nursery here forms an attraction, too, for visitors. Trains run frequently during the day.

THE THORNS, which is the name of a well-known holiday resort, about 2½ miles beyond the Wonderboom, is a grove of heavy bush on the banks of the Aapies River. There is a small hotel here, and close at hand is the Government Bacteriological Institution. Motor trains run at intervals during the day.

HENNOPS RIVER, which passes through the high and steep ridges to the limestone hills, about twelve miles to the west of Pretoria, is a delightful place, and well-known as a camping-out ground for Pretorians at the holiday season. It abounds in beautiful rock and river scenery, and there is good fishing and swimming to be obtained in the many pools of the stream.

SILVERTON lies six miles to the east of the town, the pretty gardens around the hotel are the attraction for visitors who drive out, and there is a good road all the way.

The ZOOLOGICAL GARDENS and TRANSVAAL MUSEUM, both of which are truly South African in character, are an endless source of pleasure and instruction to both townspeople and visitors. They occupy a fine situation in the lower part of the town, and the new tramway system, includes an extension to the gates of the gardens. The latter are nearly 150 acres in extent. Both establishments are under the direction of Dr. J. W. B. Gunning, who is known all over South Africa as an enthusiastic and able scientist.

THE TRANSVAAL MUSEUM

The history of the Transvaal Museum dates back to 1892, when a commencement was made with the collection of objects of historical interest. A year later natural history specimens were added and a few ethnographical curios were exhibited. Valuable work has been done by the honorary curator, Dr. Breyer, but no systematical or faunistic work could be undertaken until a fixed and permanent appointment was made in 1896. Since then it has been the endeavour of the staff, under Dr. Gunning, to study the fauna and flora of South Africa in general, and of the Transvaal in particular, and to make collections as complete and representative as possible.

The collection of South African antelopes is complete in fact, the only species of big game that is wanting is the African elephant; an 18½ feet giraffe, a beautiful black rhinoceros, a superb white rhinoceros, and a fine hippopotamus represent the largest game of this continent; there are over 8,000 South African birds and skins, and some 200,000 South African insects. Thousands of Transvaal plants are in the herbarium, but the building is much too small to exhibit all the treasures the natural collection contains.

THE ZOOLOGICAL GARDENS

The Zoo was started in 1898 in the back yard of the Museum on Market Square, and by the extraordinary co-operation of all sections of the public, contains at present one of the most valuable collections in the world. There are 22 different kinds of South African antelopes,



Zoological Gardens, Pretoria

among which a magnificent pair of South African gemsbuck stands out as the pride of the gardens. The large aviary has an undivided flight of 120 feet in length, 40 feet in breadth, and 45 feet in height, and contains a glorious collection of South African, American and Australian birds. The collection of South African birds of prey is all but complete. Thanks to the genial climate a grand collection of monkeys keep in splendid condition. Quite recently a huge hippopotamus, the gift of Lord Selborne, and a fine buck rhinoceros, have been added to the collection.

The income, which in 1898 consisted of a grant of 3s. per day, has risen to about £12,000 a year, £6,000 of which is contributed by the Government. During the last session of Parliament a sum of £60,000 was voted for the erection of a new Museum building.

THE INDUSTRIAL EXHIBITION

The permanent exhibition of South African Industries is accommodated in a large building in Van der Walt Street, just off Pretorius Street. It was established in 1909 by the Pretoria branch of the South African National Union, assisted by the Pretoria Society of Agriculture and Industries. The object of the exhibition—which is one of the first of its kind in the country—is "To interest the public in the development of South African industries, and to offer at the same time an inexpensive advertisement of each article." It has already attained considerable proportions, and shows substantial value in both the directions indicated by the words quoted. The three floors of the building were well occupied by the end of 1909, two of them filled with samples sent by manufacturers and producers from all parts of the sub-continent, and the third partly taken up by exhibits supplied by the Agricultural and other departments of the Government, affording information of great interest relating to farming, mining, and factory work in the Province.



Proposed Museum, Pretoria

CONCERNING THE TRANSVAAL

The Transvaal Province lies between the 22nd and 28th parallel of South latitude, and the 25th and 32nd degrees of East longitude. The area of the country is 113,642 square miles. The population in 1899 was 167,150 men, 122,350 women—a total of 289,500 whites, and 589,126 natives; and in 1904 299,327 whites, and 969,389 natives including men and women.

The southern portion of the Province is traversed from west to east by a a high plateau, which forms the watershed between the rivers running south and those running north, of which the chief are the Vaal and the Limpopo. Besides this plateau, called the Hooge Veld, there are three mountain ranges which cross the country from west to east, of which the most northerly is called the Zoutpansberg, in the district of the same name. Detached ranges, which are continuations of the Drakensberg, extend from the Natal boundary across the Olifant's River as far as the Limpopo, the northern limit of the



Post Office, Pretoria

Transvaal, and these rise in places to some 7,000 feet. Owing to the elevation of the country, which is over 4,000 feet above the sea, the climate is healthy, the winter being especially bracing. This season extends from April to August, and is generally dry. The monthly mean temperature during the summer ranges from 65 to 73 degrees, and during the winter from 59 to 65 degrees.

The country is well-watered, as in the Orange Free State it is supplied with numerous pans and lakelets, the largest of which is Lake Chrissie, 36 miles in circumference. Horses, cattle, and sheep thrive well, and in the middle and northern parts of the Province vegetation is luxuriant, and many extensive forests occur.



Town Hall, Pretoria



Government House, Pretoria

Education in the Transvaal

Education has made wonderful strides in the Transvaal since the War. Teachers were brought from all parts of the Empire to the Concentration Camps, and at the conclusion of hostilities the children were followed up to the farms and a comprehensive system of town and farm schools was established. During the past seven years 10,000 children have been added to the enrolment lists, and at the present rate of increase the numbers will soon reach a total of 50,000 scholars.

Under the Crown Colony regime the educational system was one of unmodified central control, but in 1907 an Education Act was passed which gave to School Boards and School Committees considerable advisory powers. The teachers are, however, Government servants, paid from the State Treasury. The largest Board is that of Witwatersrand Central, or Johannesburg, which has under its jurisdiction 39 white schools, with 10,717 scholars, and four coloured schools with 877 scholars.

Primary education is free, and there is a comprehensive system of bursaries forming an educational ladder leading to the seven High Schools and to the University College with its branches at Pretoria and Johannesburg.

The training of teachers forms an important part of the Education Department's work, and there are three Training Colleges at Johannesburg, Pretoria, and Heidelberg.

The Transvaal, generally, has before it a future such as has been open to but few countries. From all points of view—agricultural, pastoral, mineral, industrial—there are boundless possibilities. The mining industry is in a flourishing position, and with the settled conditions resulting from a unified South Africa the commercial interests will be established as they never have been before. The country can support a vast population with ease, and there is no reason why, within comparatively few years, it should not rival and even

outdistance such prosperous American States as Ohio and Illinois. All that new-comers, who intend to settle, require, is a fair amount of capital with which to start, and there is no doubt that under the new state of things peace and prosperity will abound.



WESLEYAN CHURCH



PRESIDENT KRUGERS CHURCH



DUTCH REFORMED CHURCH



PRESBYTERIAN CHURCH

Places of Worship in Pretoria



Komati Bridge

Moonlight scene—Komati River



To Harrismith, Bethlehem, and Kroonstad

The Orange Free State Line

CHAPTER XI



THE line to Kroonstad is 215 miles long. The first 36 miles are in Natal, the remainder in the Orange Free State. The Natal portion of the line is incomparably steeper as it passes over the Drakensberg Mountains, rising over 2,000 feet between the Junction and the border station. The scenery in Natal is on a grand scale, and no tourist should omit this journey from his itinerary. The Harrismith-Kroonstad line takes leave of the main line at the Orange Free State Junction, one mile north of Ladysmith. In the vicinity are many notable positions held by both British and Boers during the siege, this being about midway between the opposing forces. After clearing the Junction the line passes through an open country westward to the stopping places Smith's Crossing and Walker's Hoek, the latter point being ten miles distant. The Klip River being crossed, the Drakensberg is revealed in all its majesty.

"Huge as despair, as if in weariness
The melancholy mountains yawn."

At the base of the mountains are many large stock farms, and thousands of sheep pasture on the spreading plains.

BESTERS is the first station on the branch, and is situated in the middle of a large grazing district. At this point the first shots in the Natal Campaign were fired, in a brush between the Natal volunteers and the enemy, on the 18th October, 1899. Passing towards Brakwal the intermediate halt of COLWORTH occurs.

Altitude	4005 feet.
Distance	205 miles.

BRAKWAL is beautiful in situation. In front, three-fold zig-zags of the reversing station may be seen, and it is interesting to note that, within the short space of half-an-hour the locomotive will have climbed a thousand feet.

Altitude - - 4637 feet.
Distance - - 218½ miles.

Mr. J. F. Ingram in "The Colony of Natal" has given so graphic a description of the journey between Brakwal and Van Reenen that it is repeated, with the few amendments necessary to adapt it to the present time :—

"On the right the stately Drakensberg rises in terraces, piled steep on steep. A few moments' halt at the Brakwal Station and away goes the train, whilst the traveller almost with bated breath watches the first angle. Visions of disaster from broken couplings or other untoward accidents may be instantly dismissed, for by a cunning device of engineering it never



Reversing Stations, Harrismith Branch

becomes perceptible in the carriage that anything unusual is taking place. The view from the windows is splendid, and away to the south-west, Tintawa Mountain, like a Titan Fortress, appears through the drifting clouds. One could almost imagine that fierce warfare is being waged up in the solitary heights by the sprites who dwell 'midst frost and snow.'

"The palms of the coast have now been replaced by heather ; wild poppies nod their drowsy heads beside the line, and quaint sugar-bush trees with fir-like cones, stretch out their storm-strained limbs over the blue distance beneath them. The day darkens as the train speeds on ; above and below there is bright sunshine—a passing cloud has been pierced—that is all.

"As the train sweeps through the dense white mist, the red glow from the engine is reflected on the vapour. Then out it rushes into the sunlight again, along one angle after the other, each perceptibly higher than the last, until the reversing station has been passed, and with an exultant shriek from the engine the task is complete, and the train, leaving echoes behind her, whirls along through rarified air over level plains 5,520 feet above the sea.

"Approaching VAN REENEN'S the road passes through a theatre of scenery which can be described in all truth as sublime. A few miles to the eastward of the station a prospect is revealed which no human being can regard without a thrill of the most exquisite and reverent delight.



The Curve, Van Reenen

"It was from this magnificent vantage point that the early Boer voortrekkers first viewed their land of promise, their future refuge and home. Words are but feeble when called in requisition to describe the majesty of the scene. Mountain after mountain—hill after hill—can be traced. Broad and apparently endless vales, forest belts and rivers are commingled in such a wealth of beauty as to rival many an already famed land. There is no doubt that Piet Retief, the heroic leader of the Boer emigrants, simple farmer though he was, drew from this scene that courage and inspiration which enabled him to face the terrors of hostile barbarism, and to win for himself and his compatriots the glory which has caused their names to be enshrined for all time in the pages of African history."

VAN REENEN station is situated on the western frontier of Natal, and

Altitude	5519 feet.
Distance	226½ miles.

leaving it, the Orange Free State is entered. In the vicinity of the station there is an hotel and customs house. To the left of the line great isolated mountain masses are visible, each one standing like a palace of mystery, with the summits swarthed in clouds, and kloofs dark with impenetrable forests, amidst whose almost untrodden solitudes are Bushmen's caves, containing on their rocky walls curious representations of beasts and birds.

The Kloofs, the Bushmen's Caves, and such noted mountains as Rensburg Kop, Nelson's Kop, the Three Sisters, and the Knuckles, also the historic Van Reenen Pass, are best accessible from Van Reenen Station. The Railway Hotel is a few hundred yards away, and is much used by visitors in the summer months, October to March. The excellent shooting also attracts a large number of sportsmen during the season—May to August.



'Ngaba-Kwa-Zulu, Van Reenen

Leaving Van Reenen station, in a little while the Wilge River comes into sight. Still on and on, through a region of uncounted lakelets—or pans, as they are locally called—the train, relieved from its mountain climb, whirls along with redoubled speed.

The ridge of mountains forming the water shed of South Africa have now been passed, there is a perceptible fall in the country towards the west. The rivers have reversed their courses, and flow from the Berg into the Atlantic, instead of the Indian Ocean.

SWINBURNE, formerly known as ALBERTINA, the next station before Harrismith, has no remarkable features of interest other than its proximity to the Berg and the River Wilge, which latter is plentifully stocked with fish. Passing WALTON HALT, the next important stage of our journey is reached.

Altitude - - 5407 feet.
Distance - - 234¾ miles.

HARRISMITH.—This noted town is situated in the north-eastern angle of the Orange Free State, 60 miles from Ladysmith and 250 miles from Durban. It has always been essentially a market town, and, in addition to its considerable agricultural and trading importance, forms an invigorating health resort for people from Natal during the summer season. The altitude and rarity of the air are recommended as being peculiarly beneficial to consumptives.

Altitude - - 5319 feet.
Distance - - 250 miles.



Harrismith

The population of Harrismith, according to the official return, is 7,363, comprising 3,439 whites, and 3,924 coloured. The value of landed property is assessed at £465,760, and the town lands at £60,000. The general rate is one penny farthing in the pound. The water supply and sanitary arrangements are good.

The town possesses a fine park, containing lake and athletic grounds, a polo ground, golf links, tennis courts, and racecourse. There are a number of well-designed public buildings, churches, hotels, houses, and stores. The Municipal Buildings form a splendid erection, having cost approximately £30,000.

The Plaatberg a high table-topped mountain, forms a picturesque background to the town. From the top of this, in clear weather, the historic Amajuba can be seen.

As will be imagined, Harrismith is largely used by tourists, sportsmen, photographers, and scientists, as the centre for visiting the Drakensberg.

Mont aux Sources (11,000 feet) where rise the rivers Tugela, Orange, Eland, and Vaal, is about 30 miles off. Sunrise, viewed from this mountain, is a sight never to be forgotten, resembling strangely the famous Matterhorn.

Such other noted portions of the Berg as Tintwa Pass and Witzie's Hoek, the latter of interest as the last stronghold of the Boers in this portion of the country, lie also in the same direction as Mont aux Sources.

Tours on the Drakensberg may be organised locally, and all necessary arrangements made at one of the hotels ("Royal," "National," or "Central") for pack-horses, camping-kit, provisions, etc. There are several boarding and farm houses in the vicinity.

LEGISLATIVE LIBRARY ONTARIO

Harrismith is a large trading centre, wool, hides, horns, and cereals constituting the chief exports. The capabilities of the district are immense, and great developments are anticipated. Stock thrives well, dairy produce may be made a very payable undertaking, whilst maize, corn, and other field crops, fruit, and tobacco, yield prolifically. And what is said of Harrismith applies equally to the Orange Free State as a whole.

The railway lines from Natal to Kroonstad, and Bethlehem to Bloemfontein *via* Ficksburg and Modderpoort, connect the town and district with Bloemfontein and Johannesburg.

Harrismith played a passive, but not altogether unimportant, part during the great campaign. It was the principal base of supplies for the Free State Forces lying around Ladysmith during the investment, and ten months later, on the 4th August, 1900, the date of occupation by the British, Harrismith was established as the headquarters for the troops operating in the eastern portion of this extensive Province.

HARRISMITH TO KROONSTAD

The traveller after leaving Harrismith at once realises the difference which is so striking in the physical characteristics of the country in the Natal and Orange Free State territories. With the Plaatberg just receding from view the country becomes less confined, and as far as the eye can see is illimitable veldt, interspersed here and there with a Dutch farm house, generally a stone building, or built of earth sods cut out in brick formation with no pretension to style or appearance.

After leaving Harrismith the first stop is Glen Lennie Halt, which is a convenient depôt for many farmers in the district. There is a small store adjacent to the station. A little over half-an-hour and Aberfeldy is reached. This is a busy station around which are situated several good stores in addition to a milling business. Tourists wishing to visit Mont aux Sources from the Orange Free State side of the Drakensberg alight at this station. Rydal Mount is within driving distance, and from this hostel excursions to the Berg may be comfortably made. Passengers alight here for Kestell Village and Witzies Hoek.

Passing through Chivelston Halt the train quickly approaches Kestell Road. Looking to the left the tourist will discern a hill upon which a monument has been erected: this is Tweefontein the scene of one of the many stirring incidents during the late War. Kestell Road is a small trading station with several well-appointed stores.

TIGER RIVER is the next station. Large quantities of grain for export are put on rail at this depôt. Resuming our journey through flat and somewhat uninteresting country the halts of Sherbrooke and Annandale are left behind and our train pulls up at Bethlehem, the junction for Bloemfontein-Modderpoort Line.

Altitude	5466 feet.
Distance	294 miles.



Bethlehem

BETHLEHEM—whose importance as a railway junction has been greatly increased of recent years by the construction of several railway extensions, among which may be mentioned the Modderpoort, which links up Durban and Bloemfontein, the extension to Kroonstad, and the Grootvlei Line, which will form a junction with the Main Line at Standerton—it has a population of 1,500 whites, many good stores, hotels, and an abundant water supply. It is also the centre of a large grain and dairying district.

Altitude	5334 feet.
Distance	315 miles.

Leaving Bethlehem, on the left-hand side a clump of trees marks the site of the neatly-kept cemetery which contains the graves of many who fell in the late War.

MEETS, the next halt, is the summit of this line. A few miles distant are the halts of Valsch River and Kaallaagte, both of which places are slowly coming into prominence as trading centres.

Altitude	5614 feet.
Distance	322 miles.

After leaving Kaallaagte the traveller will espy a conical-shaped hill, named "Kaffir Kop." This eminence was used as a signalling station by the British troops during the War.

LINDLEY ROAD, the station from which the post-cart for Senekal runs, is next reached. A large and general traffic is handled at this place. There are several stores and a good boarding-house near the station.

Altitude	5154 feet.
Distance	352 miles.

Passing Komspruit the next stop is at Lovat Station, named after Lord Lovat who owns a settlement a few miles distant, which is tenanted by farmers from his estate in Scotland. There is a large and well-equipped store in the vicinity of the station. On resuming the journey, Oosthuysen, Wonderkop, and Cowie halts will be passed, and the train, after a rather long journey, pulls up at Kroonstad Station.



Cross Street, Kroonstad

Altitude	4499 feet.
Distance	406 miles.

KROONSTAD is a rising town, pleasantly situated on the Valsch River. It is a favourite place for holiday makers, and the boating on this picturesque stream, over which the Corporation has spent large sums of money, is a great attraction. The town authorities have done much in making the place popular by carrying out extensive improvements, and the municipal buildings would do credit to a much larger town. There are, as one would expect in a holiday resort, many flourishing hotels. The population is 8,000.



Valsch River, Kroonstad

CONCERNING THE ORANGE FREE STATE

In area it is computed to be about 50,000 square miles. Its configuration is of the simplest, consisting practically of an enormous plain, with a gradual slope to the westward. Near the eastern borders there are many mountains more or less connected with the Drakensberg. For the rest, small table-topped hills occur, and these only occasionally.

The situation of the territory is between latitude 26° 25′ and 30° 40′ south, and 24° 25′ and 29° 45′ east longitude. The country lies between the Cape, Basutoland, Natal, and the Transvaal. The population is 142,679 whites, and 244,636 coloured.

The following indicates the districts and chief towns and villages:—Bloemfontein (the capital), Reddersburg, Brandfort, De Wetsdorp, Thaba N'chu, Smithfield, Fauresmith, Jagersfontein, Edenburg, Petrusberg, Koffyfontein, Harrismith, Winburg, Ventersburg, Senekal, Kroonstad, Vredefort, Reitzburg, Boshoff, Philippolis, Bethulie, Jacobsdal, Rouxville, Zastrom, Bethlehem, Lindley, Reitz, Ladybrand, Heilbron, Paris, Hoopstad, Bultfontein, Wepener, Vrede, Frankfort, Villiers, Ficksburg.



Kloofs near Bethlehem

HISTORICAL.—A party of Boers first trekked into the country in 1820, but it was not until 1848 that British sovereignty was extended over the territories north of the Orange River by a proclamation issued by Sir Harry Smith. Some of the Boers, most of whom had come with their leader Andries Pretorius, from the territory lying north of the Vaal River, resisted, but were defeated at the Battle of Boomplaats. In March, 1849, Sir Harry Smith issued another proclamation, in which the territory was named the Orange River Sovereignty; the limits being the Vaal River, the Orange River, and the Drakensberg. In February, 1854, the country was again abandoned, and handed back to the Boers, who then formed their new Government, which was recognised by the British, and was maintained until its coalition with the South African Republic, resulting in the return of the colony into British possession, governed by a Deputy-Administrator called the Lieutenant-Governor, under the jurisdiction of the High Commissioner for South Africa. The colony again ultimately received independent government from the British Parliament, under Letters Patent, dated 5th June, 1907.

BETHLEHEM - MODDERPOORT - BLOEMFONTEIN LINE AND BETHLEHEM-KROONSTAD LINES.—Travellers from Natal wishing to reach any part of the Orange Free State had to travel *via* Volksrust and Johannesburg, and therefore the opening of these lines has given a through direct route from from Natal to this inner Colony.

HARRISMITH - KROONSTAD LINE.—The first line to be constructed was the route from Harrismith to Kroonstad, completed on the 21st June, 1906, and later the still more important communication from Bethlehem to Bloemfontein completed on the 2nd July, 1907.

BETHLEHEM - BLOEMFONTEIN LINE.—This important cross-country line traverses one of the largest agricultural territories in South Africa. Along this line nearly every kind of agricultural pursuit may be profitably pursued. Leaving Bethlehem, Fouriesburg is the first station reached on the Bethlehem-Modderpoort Line, the village of that name being about six miles distant. Vehicles are obtainable on the arrival of the up and down trains,

and may also be obtained at other times at reasonable fares. The village is prettily situated amongst the hills, 6,000 feet above the sea level. The chief range of mountains are the Wittebergen, and the principal river the Grootspruit. It is the seat of a magistracy and municipality, and contains three boarding-houses and one hotel. The population of the district consists chiefly of farmers, who grow wheat, maize, etc. Cattle thrive well, and dairy and sheep-farming is extensively practised. Farms are difficult to obtain, and vary in price from £2 10s. to £4 per morgen. Erven of ground are obtainable in the village from £7 10s. to £50 per erf. There are within easy reach of the village some pleasant pleasure resorts, particularly the Grotto and the Caves, whilst the Maluti Mountain range forms a scene of much grandeur.

FICKSBURG.—Passing through Brindisi Road, Ficksburg the next place to be reached is a much larger village than Fouriesburg, and also the seat of a magistracy and municipality. The Caledon River marks the boundary line between Basutoland and the Orange Free State and runs close to the outskirts of the village, which is well provided with hotel and other accommodation. The Maluti Mountains, not inaptly called the Switzerland of South Africa, are within reach of the township. Post cart services may be obtained at reasonable cost and render communication easy to Hlosti and other Basutoland hamlets. The chief products of the district are maize and wheat, and dairy-farming is carried on with considerable success. The Government Forestry Farm of some 2,000 acres has proved a successful undertaking. The principal buildings are the Town Hall, Dutch Reformed Church, Post Office and Court House. The population consists of 1,000 whites and 2,700 coloured inhabitants. The climate around this district is very delightful.

GUMTREE, now known as Schuttes Draai, is the next important station and serves an active agricultural population who raise large quantities of wheat and kaffir-corn and maize. It is also the loading depôt for produce from Schuttes Draai, about 6½ miles from the railway station.

CLOCOLAN is the next village, where boring for petroleum is in active progress. Operations have been carried 2,000 feet below the surface, and a successful output is anticipated. The village is about half-a-mile from the station and vehicles meet trains in either direction. The most imposing estate in the neighbourhood is "Prynsberg," where a collection of various animals are kept in enclosed paddocks within view of the passing trains.

The mountains of the district are Clocolan and Corranaberg, and the Clocolan River and Moperi Spruit irrigate the country. The products of the district consist of maize and corn; stock and dairy-farming is also pursued with success, and the wool output is not inconsiderable. Stock of all descriptions thrive. There is a tri-weekly post cart service to Marquard, a village about 15 miles distant. The climate in the winter is particularly bracing. Accommodation may be obtained at either of the two hotels at reasonable charges. The population is composed of 500 whites and 250 coloured.

MODDERPOORT and district is noted for its generous production of maize, wheat, and kaffir-corn. One of the attractions of Modderpoort are its gigantic crags.

LADYBRAND is a town of some importance, situated 91 miles east of Bloemfontein, is 5,241 feet above sea level, has a municipality, and is the seat of a magistracy. The Plaatberg Mountain is an imposing feature, and is responsible for the excellent and plentiful supply of its water. There are three good hotels in the town and a Government nursery in which is grown various kinds of fruit. The principal products are maize, wheat, oats, while cattle-raising is an important asset of the farming industry. The Caledon River is the boundary between Basutoland and the Province, and is about five miles distant, while the Maluti Mountains form an imposing background. Petroleum is being actively prospected for, and some excellent results have so far been obtained.

There are many beauty spots in the neighbourhood, notably Hoffman's Kloof, and Lilihoek, the latter being only a short distance from the outskirts of the town, and is a



Modderpoort

favourite resort not only to visitors but the townspeople. Ladybrand is about twelve miles distant from Maseru, which also can boast the possession of a few substantial buildings, such as the "Grand," and "Victoria" hotels, Dutch Reformed Church, Government offices, public school, and a local club.

MARSEILLES is situated in a thriving farming district, the principal crops raised being maize and kaffir-corn. Stock-raising is also actively pursued. Farms are somewhat difficult to obtain, and as a result are increasing in value. At present there is no hotel accommodation, but the hospitality of the farming community is proverbial. This station forms the junction to Maseru.

MASERU, the capital of Basutoland, is about one mile from the village of that name. and is charmingly situated on the banks of the Caledon River, with the Maluti Mountains forming a bold headland. Thaba Besige stands as a sentinel in company with a magnificent waterfall, fed from many streams, and further in the mountain is a valley that is reputed to have the longest perpendicular drop in the world; the Sesute translation of the name being the Devil's Hole. The chief products of the district are: maize, kaffir-corn, and wheat. Cattle thrive well, and wool is largely exported. The climate is unequalled and the scenery unrivalled.

The country has a great future, and well-defined roads and tracks indicate the routes for the many travellers who trade in the various hamlets. There is a bi-weekly post-cart service to Morija, Mafeteng, and Teyatnan. The rainfall is even during the year, which, in addition to the snowfall in winter, accounts for the fertility of the soil. Cattle diseases are unknown and horse sickness is extremely rare. Prospecting is strictly prohibited. The Resident Commissioner and European staff reside in the village, where there are some good residential houses, whilst the Council Chamber is a moderately massive building. The white population number about 300. Returning to the main line, *en route* to Bloemfontein.

WESTMINSTER is soon reached. It has an altitude of 5,387 feet above sea level, with a consequent bracing climate. In the district are to be found the most up-to-date and picturesque farm buildings, surrounded by well-tilled lands and equipped with the latest agricultural machinery. In the season on all hands may be witnessed smiling fields of corn, healthy-looking acres of maize, and well-drilled plots of potatoes, as well as other cereals and crops for which this district is noted. The initiative in establishing this estate rests with His Grace the Duke of Westminster. There are periodical sales of well-bred stock, which are numerously attended. Tweespruit Government Experimental Farm is three miles from the station, and the Tweespruit Dairies, Ltd., only a little further from the rail. The Government Stock-breeding farm comprises some 2,000 morgen. Accommodation for travellers can be obtained at suitable boarding-houses.

THABA 'NCHU is the highest point along this line, the Thaba 'Nchu Mountain being the topmost peak on the flat summit of which there is to be found a small lake and cave. There is a 100 morgen Native Reserve at Thaba 'Nchu. The raising of corn, maize, fruit, and stock, form the chief industry of the inhabitants. The principal buildings are the Court House, Club, Imperial Hotel, and Dutch Reformed Church. There is a tri-weekly post-cart service to Dewetsdorp and Wepener. The population is comprised of 1,200 whites and 4,000 coloured. Around the district there is a population of over 3,000 natives.

WATERWORKS is the next station, and serves a good agricultural district, which raises maize and forage, and is also admirably adapted for dairy-farming and the breeding of good stock. The principal watercourse is the Modder River. The Bloemfontein Municipality have large water storage works erected here, as a reserve supply for the capital of the Orange Free State. The climate particularly in the winter time is very healthy.

BLOEMFONTEIN, the capital city of the Orange Free State, contains a population of 30,000. The town is well-provided with water, has an excellent electric light installation and sewerage system. As may be expected there are numerous fine buildings, two or three up-to-date hotels, and the park and streets are well laid out. A unique feature of the gardens attached to the public buildings are the trees planted by various notable personages who have visited the city at various periods, and others by prominent citizens, the most notable being the one planted by the late President Brand in 1879. The close proximity to the military camp at Tempe adds considerably to the active and social life of the town. The main buildings —consisting of the Law Courts, Council buildings, Municipal offices, as well as ecclesiastical and educational structures—exhibit marked features of architectural beauty, and speak well for the characteristic energy and desire of the inhabitants to make the town worthy of the name of the chief city of central railway communication in the South African Union. From this centre, railway arteries run out at all points of the compass. The climate is extremely pleasant, being moderately warm during the summer months and cold during the winter season.



Market Square, Bloemfontein



Raadzaal, Bloemfontein



Town Hall, Kroonstad



"The Devil's Chimney"



FROM SOUTH COAST JUNCTION TO ISIPINGO

INCLUDING THE BLUFF LINE

CHAPTER XII



DEVIATING from the main line at South Coast Junction the branch train bowls along on a level track, past the Natal Match Factory and the Chemical Manure Mill, across the bridge of the Umhlatuzan—which river trails through a country singularly pretty and well-foliaged, the train then travels through bright red cuttings, into the Junction Station of the Bluff Line.

CLAIRMONT is a favourite resort for picnic parties and tourists, and as there is a good hotel, standing in large and beautifully laid-out grounds, this pretty place entices many visitors from Durban and other parts. Amongst the various attractions may be mentioned the tea gardens, sports grounds, and the Umhlatuzan River, which is within a few minutes' walk. It is the centre of good brickfields and stone quarries ; and has a large Catholic Native Settlement in the vicinity.

Altitude	57 feet.
Distance	5¾ miles.

The BLUFF LINE radiates from Clairmont, and sweeps round the edge of the bay, passing the stopping-places in the order given : Jacobs, Wentworth, King's Rest (named after the renowned Richard King), Fynnland (this is in memory of Henry Fynn, who, with Lieutenants Farewell and King, were the three recognised leaders of the pioneer English settlers), and Island View, terminating at

WESTS, the headland station of the Bluff. This rail route between Durban and Wests is very popular, and at holiday seasons is well patronised. Wests has many attractions to families,

Altitude	9 feet.
Distance	12¼ miles.

including the beach, the lagoon to swimmers, the Cave Rock to anglers and photographers, and the lighthouse, coaling appliances, whaling station, etc., to engineers and sightseers.

There are two whaling stations at the Bluff: the Union Whaling Co.—whose property lies just beyond the Cave Rock, that well-known resort for the Bluff visitor—and the older station the South African Whaling Co., whose premises lie beyond those of the African Colour Co. The methods of treating the whale at both stations are practically the same.

Messrs. Kynoch's, Limited, also have a factory there for converting the whale oil into glycerine.

The Bluff Line is destined to be of much greater importance in the near future, as the "Bluff side" will be a large component of the Harbour. Already several industries have gathered adjacent to the railway line between Clairmont and Wests, including brick and tile; oil and soap; and hollow-block works. Returning to Clairmont the train rushes over grassy plains to

MEREBANK, notable as the site of the largest Boer Refugee Camp in Natal during the late War. Beyond Merebank large sugar plantations and maize fields open before the eye, thick clumps of supple bamboo trees bend with measured grace in the breeze, the thatched dwellings of the ubiquitous coolie are scattered near and far, and the dusky tenants may be seen in the cane fields, or diligent in other directions. The siding to the Umlaas Wool-washery and Sugar and Maize mills is shortly passed, the Umlaas River itself is crossed by one of the longest bridges in the Province (1,160 feet).

Altitude - - 68 feet.
Distance - - 8½ miles.

REID'S SIDING is a halt passed before reaching

REUNION, which is a quiet little station in the heart of sugar and maize-bearing land.

Altitude - - 39 feet.
Distance - - 9¾ miles.

ISIPINGO, the next station, is a livelier place. It possesses a church, public hall, school, two hotels, library, and various stores. The village is a convenient distance from Durban, and, by reason of a good road, is much visited by cyclists and others.

Altitude - - 29 feet.
Distance - - 11⅜ miles.

The seaside attractions of Isipingo are deserving of special mention. The beach is about 13 miles from Durban. It is one of the prettiest spots on the coast, very convenient for good bathing and fishing, and the rocks are an ever-popular feature. There are also splendid boating facilities over about two miles of lagoon and river.

The lands lying between the railway station and the beach, a distance of about one-and-a-half miles, have been acquired by an enterprising syndicate and a considerable sum of money has been invested in converting this wild and lovely locality into an attractive holiday resort. A hardened road has been made from the railway station down to the beach, and a strong span—200 feet long—bridges the Isipingo River. A tram line has been laid down, and horse cars provide a quick and easy means of access to the beach.

Capacious tea rooms are in evidence on the island, a footbridge connecting the island with the beach, and a large boat house and bicycle shed have been erected.

Owing to the easy accessibility of Isipingo to Durban, this beach is one of the most popular resorts on the Natal coast for picnic parties.

In the Isipingo cemetery will be found the tomb of Natal's hero, Richard King, to whom a memorial will be erected.

From ISIPINGO to LOWER UMKOMAAS

UMBOGINTWINI.—The journey from Isipingo to the stopping place of Umbogintwini, through fields of waving sugar cane, garnished by giant-bamboo, wild banana, and palm trees and enclosed by a well-wooded country reposing in the most picturesque disorder, is but a foretaste of the charming kaleidoscopic scenery for which this line is so justly renowned. It is here that Kynoch's Explosives Factory is situated, and the sign of its activity is chiefly apparent in its widespread buildings and forest of chimneys. Great stretches of bush which had never been touched by human labour are now opened out by the besieging forces of commerce. It is the advance guard in a land of boundless possibilities. The sight is of most impressive interest.

Altitude	207 feet.
Distance	15 miles.

Before Amanzimtoti is reached the train winds ascendingly, gliding among the shadows of the trees through a long dense forest of bush, natural and deliciously cool. The scenery of the South Coast provides for all tastes.

AMANZIMTOTI (Kaffir for "Sweet Waters") is one of the best known of the South Coast resorts, and well merits the native name. As a week-end rendezvous it is of special suitability, being within an hour's ride of Durban. The hotel is commandingly situated in terraced grounds, and, like many of the hotels on the South Coast is commodious

Altitude	18 feet.
Distance	17¾ miles.



Boat Race, Amanzimtoti

and well-appointed. It controls a splendid view of the pleasure-giving features of the neighbourhood, on the left hand, the sea and shelly beach ; on the right, the broad lagoon and reedy isle, the graceful river, and the bushy undulations which extend for miles.



Amanzimtoti Lagoon

Boating, shooting, fishing, bathing, and tennis, are amongst the general enjoyments, while the artistic and photographic eye will discover numerous scenes worthy of attention. The beauties of the river, which is navigable for several miles, are by no means obtrusive : they require to be courted, but, when found, he would be an unimpressionable mortal who was not charmed with the many captivating spots along its palm-fringed banks. At various points these banks rise to almost perpendicular heights, on which the wild-banana, aloe, and candelabra-like euphorbia, tower assertively through the sub-tropical thickets. Those who wish to be "far from the madding crowd" cannot do better than seek the quiet nooks beside the Amanzimtoti.

Some three or four miles distant there is a large Mission Station, and a visit to the settlement will prove interesting.

Advancing southwards, we catch the first glimpse of the ocean. The sight is entrancing, and, with Longfellow's Count Arnaldos, one longs to learn "the secrets of the sea." With the exception of an occasional peep at the the glistening waters, the railway path lies through rich tropical vegetation.

Passing MIDDLETON and WARNER siding halts,

WINKLE SPRUIT, the next halting place, is a favourite camping-out situation. It is a pretty little spot, and takes its name probably from the tiny shell-fish found on the clusters of black rocks at the mouth of the stream. The late Natal Government opened an Experimental Farm in the district.

Altitude	88 feet.
Distance	21 miles.

ILLOVO RIVER. Although this excellent resort does not lay claim to the "blue ribbon" of watering-places, it does not fall far short of its attractive congener, Lower Umkomaas. It is a delightful seaside village, and is immensely popular, not only with day trippers, week-end excursionists, and those whose period of rest and relaxation is limited, but to residents from the interior provinces.

Altitude	14 feet.
Distance	22 miles.

The railway station is at the river, but the best access to the sands is the BEACH STOPPING PLACE, about three-quarters of a mile beyond. There are two hotels at Illovo. The shooting and fishing are good, and boating, bathing, and other pastimes are equal to any along the coast.

So far as the cultivations in this and the lower districts are concerned, the principal are sugar, maize, tobacco, and fruits.

There is a large sugar mill about two miles down the river recently fitted with up-to-date machinery.

Passing KARRIDENE,

UMGABABA is the next stopping place. It is lonely and little visited, save by solitary curlew, ibis, or wild duck, and an occasional geologist or seeker of shells. It is a lovely spot, however, abounding,

Altitude	47 feet.
Distance	26 miles.



On the South Coast Branch Line



1.—Illovo River *2.—Umkomaas Bridge* *3.—Umkomaas River*

like many other places, along the coast, in arum lilies, bulrushes, and the most delicate, as well as the hardiest ferns and other plants. Crossing the bridge of the river which here curves its way into the ocean and skirting sylvan dips and breaks into the bush, which reveal the shore and the swelling, effervescing sea, we soon detect Lower Umkomaas. Passing over the river's iron viaduct, a splendid structure, 825 feet long, we curve beneath the breezy heights on which the village is set, and turn into the station.

LOWER UMKOMAAS has countless admirers, and well merits its position amongst the South Coast health and pleasure places.

Altitude	17 feet.
Distance	30¾ miles.

Healthily situated at an elevation of from 200 to 300 feet above the sea; surrounded by hills; within a stone's throw of a wide and beautiful river; endowed on the one hand with a clear perspective of fine sands, and on the other with broad tumbled masses of metamorphic rocks; replete with several roomy and comfortable hotels and private cottages; within two hours' reach of Durban, and yet apparently hundreds of miles from the busy haunts of man, it is not a matter for great surprise that Lower Umkomaas is the favoured resort of those who desire an invigorating, quiet, restful holiday, or merely the pleasure-makers who come to fish, boat, shoot, bathe, and heartily enjoy themselves generally.

Not the least charming of the many means of whiling a morning away, is to row to the Drift, a distance of two or three miles, alight and seek the old, rambling, hostelry of the Nelsons, celebrated in the punt and post-cart days.

After some refreshment, the traveller may be inclined to push still further up the river which is even more picturesque, or to stroll to the top of the hill and scan the sharp curves and timbered covering of the sun-lit land, and trace the sinuous course of the river from its issue as a silvery streak to the broad reflective waters at the Drift. Some may prefer to break the journey one way for fishing, and capital sport is promised; others may devote their eyes and ears exclusively to Nature and her harmonious parts—the hills and valleys; precipitous forests and blossoming dells; frowning rocks and cultivated ground; jubilant tree birds and swift-winged water fowl; butterflies flitting from reed to flower; the shrill tremolo of the cicale, the rythmic splash of the oar; the swish of the tiny tree-sequestered waterfall near the Drift; even the rude hives of the Indian—all these, together with the blue unfathomable heavens, compose a picture song singularly rich, beautiful and real.

Before departing from Umkomaas, with its numerous charms, it should be added that the rising and setting of the sun is magnificent, frequently recalling the elegant lines of the talented wife of the poet Southey:

"Majestically slow
The sun goes down in glory
Wave above, wave below.
Orange and green, and gold.
Russet and crimson
Like an embroidered zone, ancestral woods
Close round on all sides;
Those again begirt
In wavy undulations of all hues
To the horizon's verge by the deep forest."

FROM LOWER UMKOMAAS TO ALEXANDRA JUNCTION AND THE UMZINTO BRANCH

The line-side scenery beyond Umkomaas, and extending for forty-six miles to North Shepstone, is incomparably beautiful. The railway where it does not run along the very edge of the white beach which margins the shore, takes us through dense bush, and in no part of South Africa is the country more truly what one pictures as a tropical scene than on the South Coast Line, the scenery is ever-changing and no tunnel may engulf you just as you are enjoying a particular view.

Now we skirt the fringe of the seashore, rock-paved and utterly deserted; the scene is changed, we pierce the sun-illumined avenues of primeval bush, and hear the softening murmur of the ocean; creeper-trellised bowers appear for a moment and are lost; forests of the tall and tattered banana, and huge plumy palm trees succeed the traceries of plants and blooms; a startled buck bounds swiftly to cover; a school of monkeys are heard chattering together, and a long-tailed bird forges with difficulty through the air.

Again the aspect changes to the broad, white sands. Looking towards the horizon, a steamer is descried, seemingly motionless, and overhead a sea-bird sails in graceful undulations towards it. In a little while green bluffs curtain the view, then broad park-like lands are passed, whose gentle slopes are laid with short, elastic grass, decorated by English-looking shrubs, until the spiky dwarf palm and its kind recur, recalling the tropical.

So on and on we travel, crossing numerous rivers, narrow and wide, open and lagooned, through scenes of unsurpassed exquisiteness, and so close to the ocean that in many places if one's hat dropped out of the carriage window it would fall into the sea.

Between Lower Umkomaas and the following station, Park Rynie, there are five stopping places, viz.: Widenham, Clansthal, the Cascades, Crook's Siding,



Railway Line at Widenham

and Scottburgh. The first two sidings are without special interest, but shortly after passing Clansthal, Green Point—with its new lighthouse and pyramidal beacon, barrel-topped—will be seen, while another beacon surmounted by a triangle will be espied on the hill behind, to the right of the train.

The lighthouse is situated on the top of a hill at the back of Green Point (nearest railway station, Clansthal Siding), 1,551 feet from the sea and 229 feet above sea level. Between the lighthouse and the sea at a short distance from the latter, may be noticed a pyramidal beacon, 28 feet high, surmounted by a cask; the lighthouse and beacon in line point in the direction of the Aliwal Shoal. The light is a quick-flashing white illuminant of the second order shewing 180 degrees all round to seaward, with five consecutive flashes of one second each in every 30 seconds, and an eclipse of 25 seconds duration. A red fixed light to cover the shoal is shewn in the same tower at a lower elevation, the shoal being about 16,000 feet distant from the lighthouse. The tower is painted with red and white bands, and the lantern white. The double flashing light has an intensity of 240,000 candles, and is visible for over 20 nautical miles in clear weather. This light was exhibited for the first time on the 16th October, 1905. The two small lighthouses, which formerly indicated the shoal, have been taken down and utilised, one at Port Shepstone and the other at Cape St. Lucia.



Green Point Lighthouse

The Aliwal Shoal was first reported in 1848 by a distinguished mariner, Sir James Anderson, who afterwards became Managing Director of the Eastern Telegraph Company. During his first command he was bringing immigrants to Natal, and keeping close in shore to avoid the strength of the Mozambique current, he noticed the seas breaking over this shoal which was not shewn on the chart; he named the shoal after his vessel, the *Aliwal*. On May 20th,

1884, the s.s. *Nebo*, laden with railway material, struck on or near the shoal and foundered, fortunately without loss of life. Shortly after the vessel must have gone to pieces in heavy weather, 10,000 of the sleepers forming her cargo being washed up on the foreshore in the vicinity of the Bluff.

A later casualty, but not so serious, was that of the s.s. *Maine*, of New York, 7,914 tons net register, laden with coal, which struck the shoal on the 20th February, 1905, arriving at the port a few hours later in a sinking condition. She was kept afloat by pumping, and lightening cargo, and was brought inside next day. After discharging the whole of her cargo she was placed on the floating dock at Durban, temporarily repaired, and returned to England in April.

CROOK'S SIDING is amidst sugar-verdured country, and the prettily-situated mill seen in the right-hand distance when crossing the lagoon to the Umpambanyoni makes an effective break in the landscape.

SCOTTBURGH has been founded near the mouth of this river. It is the

Altitude - 43 feet.
Distance - - 38 miles.

principal fishing ground on the Natal coast, and the industrious fishermen may be observed packing their catch or making ready again for sea. There are a number of cottages and an hotel at Scottburgh, and many visitors seek its healthy seclusion during the year.

PARK RYNIE, by the sea, is noted for its salubrity and English-like charm

Altitude - - 36 feet.
Distance - - 40½ miles.

of scenery. The beautiful park lanes, which command an unhindered view of the sea are now being opened up for building purposes, and before long another enticing seaside hamlet should be in evidence. There are agreeable walks and a good road leads to Umzinto, about six miles distant, passing a racecourse of some local repute, an hotel will be seen opposite the station. A whaling station has recently been opened in the vicinity.

ALEXANDRA JUNCTION is a station on the lagoon of the Umzinto river

Altitude - - 31 feet.
Distance - - 44½ miles.

at the junction of the Umzinto Branch. The environment is exceedingly choice, and a lovely view is gathered from the hill beyond the station near the hotel. Similar outdoor enjoyments are obtainable here as at other resorts along the coast, and the provision of a few beach cottages would do much to popularise the place. A railway refreshment room will be found on the station platform and travellers are allowed time for meals.

UMZINTO BRANCH.—The scenery along this little branch is superb, and would alone warrant a visit to Umzinto. One may easily imagine himself transported for the moment to some romantic part of Wales. The railway runs through a long densely-wooded valley, through which the Umzinto River meanders, now silently, as it glides by tall, rustling reeds and curtseying sugar-cane, now noisily, as it rushes foaming down its rocky bed. Side-vales retreat at sudden intervals from the greater valley, which is indeed

> " . . . . One vast mass
> Of mingling shade, whose magnificence
> Narrow vales embosom."







1. Sugar Mill, Esperanza 2.—Cane Fields, Umzinto 3. Anglican Church, Umzinto

Gigantic ferns, brilliantly-coloured flowers, and blossoming trees form continuous decoration, while hills are piled on hills revealing the presence of many-hued granite. The line follows the winding river for several miles, and some very heavy cuttings have been made. The only station on the Branch, although there are several sidings tapping the sugar-cane fields, is—

ESPERANZA, hollow-set and surrounded by high hills, mostly sugar-bearing.

Altitude - - 170 feet.
Distance - - 50 miles.

The extensive sugar-mill and distillery of the Esperanza Estate is here. It comprises some 15,000 acres and gives employment to over 1,000 Indians. The prolific Equeefa district contributes a large quantity of the cane.

The neighbouring country is greatly contorted, and the singular formation would point to the undoubted existence of metals, both gold and copper. The Umzinto district has received some attention from prospectors, and gold has been found at Dumisa, on the Highflats Road; alluvial pockets have also been discovered in the Equeefa valley, but no efforts of any magnitude have been made to test the actual worth of the discovery.

The southern terminus of the Stuartstown narrow gauge line is situated here.

UMZINTO is a large-sized, pretty, healthy village, very scattered, nearly 300 feet above the sea, in the vicinity of some of the finest sugar-land in the Province.

Altitude - - 276 feet.
Distance - - 51 miles.

The hilly approach to the main portion of the town is picturesque, and the Public Hall, adjoining tennis courts, and recreation grounds passed on the way, are very pleasantly situated. Umzinto is the seat of a magistracy for the division, and possesses such useful and necessary buildings as a Magistrate's Court, Post and Telegraph offices, Police Barracks, Volunteer Drill Hall, Armoury (this being the headquarters of the Border Mounted Rifles), Government School, the Anglican Church, and a hospital. There are several mills, wagon builders' and blacksmiths' establishments, four hotels, and a number of stores. The population consists of about 500 Europeans and a large number of Indians. The latter have their own schools, hospital, and church. There is a Roman Catholic Mission in the neighbourhood. Besides the staple sugar, mealies, beans, tea, tobacco, ground nuts, and fruit are important productions.

Umzinto is six and a half miles from the South Coast Line at Alexandra Junction, and the branch train makes connection with the several passenger trains to and from Durban.

FROM ALEXANDRA JUNCTION TO PORT SHEPSTONE

Returning to the South Coast Line. Between Alexandra Junction and Umtwalumi, the next station, the stopping places of Pennington, Isezela, and Ifafa are located. Ifafa is the best known of the three, and is one of the largest recruits to the health and holiday resorts on this coast. The estuary of the river of that name is a striking sheet of water, and the general attractions are in no way inferior to those at other points.

UMTWALUMI bids fair to become a worthy rival of the other South Coast watering places. Somewhat similar to Umkomaas it has a good expanse of beach, a broad river, excellent for boating, bathing, and fishing, and splendid inland scenery. Sea bathing may be safely indulged in the many rock pools, and very good sport can also be obtained from sea fishing. As an ideal spot for a holiday it is certainly deserving of increasing popularity. There is no cottage accommodation on the beach, but such will, no doubt, be erected in the near future. The nearest hotel and store is at present two miles inland. Passing the halts TURTON and UMHLUNGWA,

Altitude	49 feet.
Distance	56 miles.

UMZUMBI is the next station, and the last one before Port Shepstone is reached, and unless there be passengers to join or alight at the two intermediate stopping places, MELVILLE and UMTENTWENI, the train is given a clear run to Port Shepstone.

Altitude	58 feet.
Distance	67¼ miles.

There are oyster beds at Umzumbi, and good fishing, bathing, boating, and shooting may be obtained.

The principal products include bananas, pineapples, oranges, maize, and potatoes.



South Coast Line near Port Shepstone

Before discussing Port Shepstone, a few observations anent the railway and the country through which it passes may prove interesting. The section of the line from Umtwalumi to Port Shepstone was opened amidst much local jubilation, by His Excellency the Governor, Sir Henry McCallum, in July, 1901. The engineering difficulties in the construction of the line will have been appreciated, the chief of which was the crossing of the abnormal number of rivers and lagoons. Between Park Rynie and South Shepstone (38½ miles) there are twenty-three rivers involving no fewer than 6,780 feet of bridging. The three longest bridges are those over the Ifafa, Umtwalumi, and the Umzimkulu, 720 feet, 630 feet, and 1,050 feet long, respectively. It is manifest, therefore, not only from this fact, but from the fresh and exuberant

appearance of the country throughout, that the natural irrigation is exceptional, and with the railway advantages now existent, immense encouragement will be given, not only to the agricultural and general farming spheres of labour, but also to the proving and development of minerals, granite, marble, and other rich deposits in this section of the Province.



Port Shepstone

PORT SHEPSTONE is situated at the mouth of the river Umzimkulu, and was created a full fiscal port in 1893. It is the magisterial centre of the Division of Lower Umzimkulu, extending from Umzumbi River on the north, to the Umtamvuna on the south, an area of about 60 miles in length and 25 in breadth. The settlement was pioneered in 1877, and is named after one of Natal's ablest and most honoured colonists, the late Sir Theophilus Shepstone. The railway which has been constructed for about 25 miles beyond Port Shepstone spans the Umzimkulu by a bridge which is 1,050 feet in length, being constructed for both wagon and locomotive traffic, with also a railed-off pathway for pedestrians.

Altitude - -	200 feet.
Distance -	77 miles.

The village is established on a ridge of hills on the south side, and round the promontory, upon which the signal station stands, the railway station is situated.

In 1905-6 the training wall, which is on the south side of the entrance, was carried forward some 900 feet with the object of deepening the entrance, but the results were not satisfactory, and the entrance of to-day is no better than it was before this extension, and only occasionally is the channel safe for even small craft to enter or leave the river. Owing to the immense amount of sand in the vicinity, the entrance is sometimes closed up entirely, there are periods—principally after floods—when a decent channel is opened out by the flooded Umzimkulu, when the rush of water carries the sand "spit" out



Umzimkulu River Bridge, Port Shepstone

some distance into the sea, but only to be returned again when the river resumes its normal position. Since the completion of the training wall nothing further has been done.

A few notes as to the trade of the "Port" may be interesting. The district is very fertile, and splendidly suited for the cultivation of sugar, tea, maize, and various tropical fruits. The Umzimkulu Sugar Estate and the Barrow Green Tea Estate are situated a little distance up the river and are noted for the excellence of the respective productions.

The Village of Shepstone and Environs

Glancing across the river, and sweeping the gaze over the sudden ridge, which rises slow and unwooded at the sea, and ascends to lofty forest hills, seamed by sombre vales, little can be seen of the village. It nestles on the foliaged summit of the eminence, above the square-towered Customs House. Turning to the north side, which is somewhat similarly fashioned, but few dwellings can be perceived; the broad and beautiful river divides the settlement, and the sea confines it on the east. In no other part of Natal has Nature triumphed in her scenic skill as here.

Coming to the individual attractions of Port Shepstone, the finest is, of course, its regal river, which is navigable to the first of the three rapids, a distance of about eight miles from the mouth. Ordinary row boats can proceed two miles beyond, and flat-bottomed ones even another five miles. So many have descanted upon the glories of this replica of the Rhine-like Dart of Devon, that the bare features need only be given here.

The first two and a half miles of the river are straight, and maintain a width of about 160 yards; six miles further on to St. Helen's Rock and the First Rapids an average width of 112 yards is secured. The stream then narrows to about 100 yards. The sea affects the river for twelve miles, and turtle, salmon, and iguanas are common sport therein.

On the high hills to the right, the Barrow Green Tea Estate can be seen, and a mile or so further down, on the left bank of the river, the Umzimkulu Sugar Mill is greatly in evidence.

The closely-packed thatched huts, built on a slope, shelter some 250 of the coolies attached to the latter estate. About eight miles from the mouth, and in the vicinity of the aloe (fibre) plantations, and the celebrated St. Helen's Rock, the First Rapids are encountered. Motor launches drawing 3 feet 6 inches can run thus far. In order to visit the majestic precipice, which conceals a deep cave, or to push up the river to the Marble Quarries, the launch must be exchanged for the row-boat. The First and Second Rapids are in close proximity to one another, but the Third are some distance higher up, and occasionally impassable. Just beyond the last rapids the pretty Umzimkulwana is received into the main stream. A matter of a mile and the visitor will reach the lime quarries of the Umzimkulu Lime and Cement Co. The extent of the white dazzling crystalling rock, which is burned to produce this article, seems unending. The lime is said to be equal to the imported article.

Here is probably the largest deposit of lime in South Africa, which occurs in two distinct forms, one crystalline (commonly known as marble) and the other tufaceous. Of both forms there are inexhaustible and easily accessible quantities. The "marble" yields a "lean" lime of somewhat hydraulic character, pure white, and admirably adapted for lime-mortar and plastering work. The late Natal Government, after protracted tests and lengthy experiences of the lime, was completely satisfied with it for all building purposes, and it has been specified for mortar and plaster in large public buildings. It has been used for plastering purposes in such buildings as the Maritzburg and Durban Town Halls, the General Post Office, and the Natal Colonial Buildings, and for mortar and plastering in school buildings. A demand for the lime has now arisen in other parts of South Africa.

The tufaceous deposit yields a very pure lime (giving an analysis up to 96·8 per cent. of lime carbonate) suitable for sugar-refining, flux, and other similar purposes.

The tufaceous limestone is eminently suitable for the manufacture of cement, and there is ample clay shale and river mud in the vicinity to provide the second constituent necessary. Cement has, indeed, been made in England from these constituents, and upon test has been found to be far above average quality.

The deposits are at present being worked by the Umzimkulu Lime and Cement Works, formerly known as the Marble Delta Co., who have constructed new works and started operations at the Umzimkulu Bridge. The Umzimkulu River is navigable between the new works and the lime deposits.

The syndicate, it is stated, will be shortly producing lime for building, refining, and agricultural purposes at a very low cost, which it is confidently expected will find a rapidly-increasing market.

By continuing down the valley, about a mile and a half beyond the lime-works, the lovely retreat called the "Grotto" will be found

Returning to the Umzumkulu, and proceeding towards the next bend in the river, the pathway which leads to the famous Marble Quarries will be discovered on the left bank. These well merit a visit, and "to ramble through Nature's marble halls and revel in beauty primeval," is indeed luxurious. The deposits are over 30 miles in extent, and in some parts over a thousand feet thick. The marble varies in colour, from red to white, and great results are expected when quarrying commences in earnest.



Marble Quarry

The Marble Quarries generally terminate the river tour, but, as already mentioned, the stream is still navigable for several miles further. Good sport in bush-buck, deer, and game is possible in the season. Apart, however, from this inducement the scenery is of such thrilling loveliness that it would amply repay a deeper penetration into the wilds of Natal, where

"The hush of human life
Lets the low voice be heard—
The low, sweet, solemn voice
Of the deep woods,
Its mystical murmuring
Now swelling into choral harmony
Rich, full, exultant;
In tremulous whispers next.
Sinking away
A spiritual undertone,
Till the cooing of the wood pigeon
Is heard alone."

Of the other attractions at Port Shepstone, besides boating, bathing, fishing, and shooting, may be cited the charming bridle paths and roads by river and sea—and inland, too—and especially the one along the bank of the river as far as the drift. Then there are the beach rocks, about a mile from the railway station, to be visited, for they recall shuddering memories of the barbaric days of the Zulu kings. Anyone will point out the "Place of Death," or "Devil's Hole," as it is called, where the sable monarchs of old were wont to wreak so terrible a vengeance upon their unhappy victims.

The hole, satanical enough in all conscience, apart from its once diabolical association—black, narrow, deep, perfectly smooth, with an opening at each end admitting the terrific rise and fall of the boiling sea. Into this the wretched culprits were dropped and left to a helpless and inhuman battering to death by the incessant rush and recoil of the maddened waters—a more ghastly mode of execution impossible to conceive.

MARBURG must not be forgotten. It is a small Norwegian farming settlement three miles away, and affords an interesting excursion.

Shepstone, the most English-like of Natal's resorts, and situated in an atmosphere particularly bracing, and most delightfully equable, has fascinations for one and all, whether health-seeker, pleasure-seeker, artist, scientist, sports-man, business man, planter or farmer, and its prosperity should be writ large before many years.

Special mention should be made that Port Shepstone possesses a good public library, cricket, rowing, and tennis clubs, rifle association, and churches of various religious orders.



Umzimkulu River, Port Shepstone

ALFRED COUNTY RAILWAY

The Alfred County Narrow Gauge (2 ft.) Railway continues along the coast from Port Shepstone station for four miles, and then strikes directly inland to Murchison Flats, passing through Marburg Settlement Lands for five miles from the coast, then through Native Location for about six miles, the remainder of the line through farm lands. The length of the line is about twenty-five miles from Port Shepstone to the terminus at Murchison. The country rises

quickly from the coast, and a maximum grade of 1 in 38 has to be used on the railway with a continual rise to the Flats within four miles of Murchison.

The ground is very hilly and broken, necessitating the use of curves of 200 feet radius to keep the cost of the line within reasonable limits. The terminus at Murchison is on the main road from Port Shepstone to Harding, and the distance by road from Murchison Station to Harding is about 35 miles, and to Kokstad about 85 miles. The first part of the line, in addition to serving Marburg Settlement Lands will bring the farmers in the Umhlangeni and Imbizane districts within easy reach of rail communication. The Murchison district is occupied by large farmers all engaged in wattle-growing, and there is now a considerable acreage planted, a quantity of which is ready for cutting, and there is considerable room for further expansion of this culture. The Flats are at an elevation of from 1,500 to 2,000 feet above sea level, and wattles thrive well. On the first four miles along the coast the line crosses three rivers the principal of which is the Izotsha.

The line follows water sheds nearly the whole distance to the source of the Izotsha, which is again crossed by a bridge of one span of 40 feet, at seven miles from Murchison station.

HARDING, 3585 feet, with a population of 250 whites and 400 coloured, is a flourishing and picturesque frontier township and the capital of Alfred County. It is 58 miles from Port Shepstone, and 72 miles from Richmond.

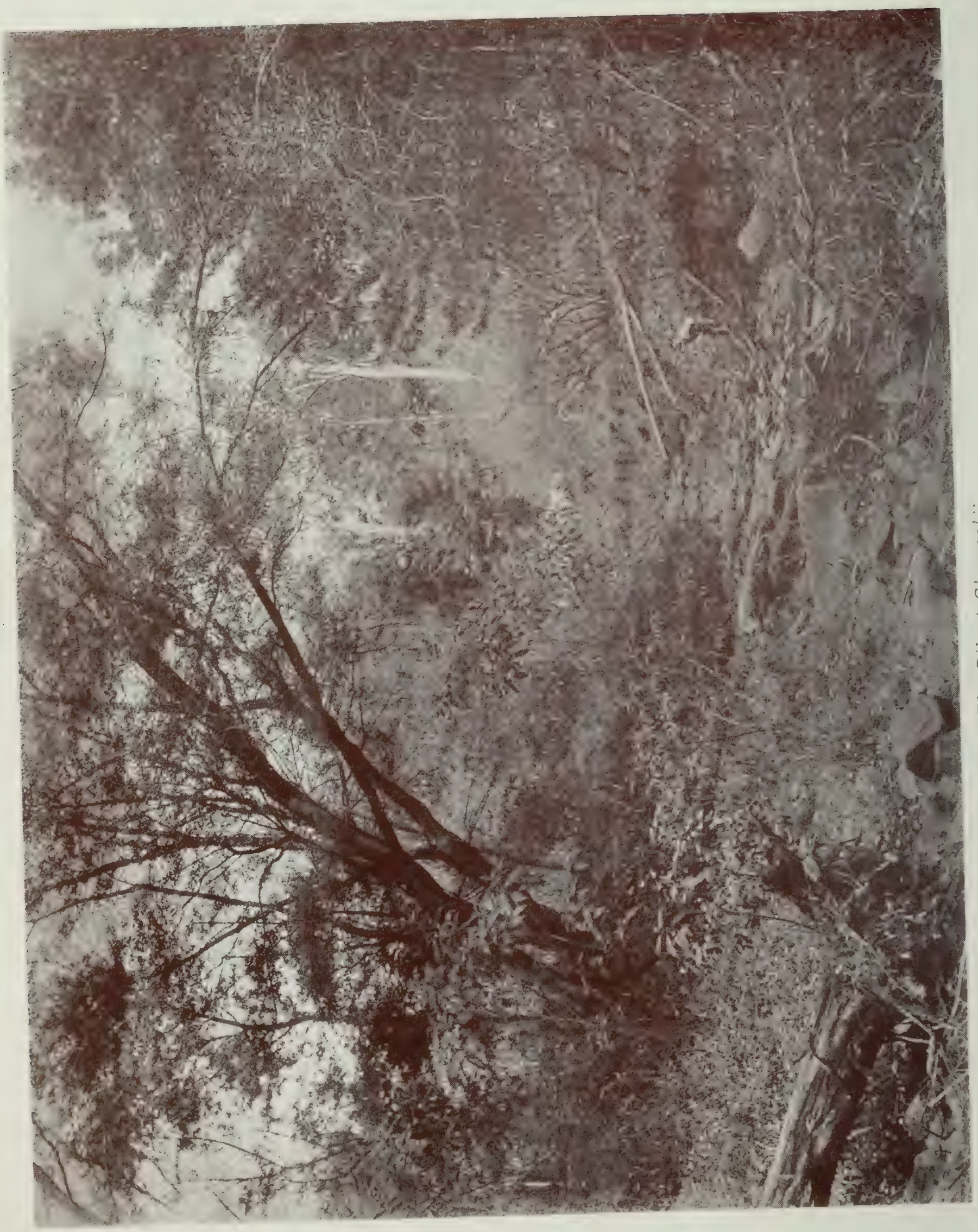
During the last few years the town has increased greatly in size, and a large portion of the Pondoland (15 miles distant) and East Griqualand trade which passes through Harding has doubtless contributed to its prosperity. It possesses a court house, two churches, an hotel, Government school, a branch of the Natal Bank, racecourse, and the usual recreation grounds, residences, stores, shops, etc.

The district is wholly suitable for both stock, agriculture, and wattle-growing, and with the expectation in the future of nearer railway communication the farming industry should be materially stimulated.

The well-known Ingeli Mountains lie in this direction, where deposits of graphite, and copper, will be systematically worked on a larger scale than hitherto.

Some of the finest timber forests in the Province are situated in this locality.

Harding affords access to Kokstad (the capital of East Griqualand) by post cart. Pending the time when the Port Shepstone-Ingeli Poort Railway will be extended to a point nearer Harding, the existing daily (except Sundays) post cart service from Port Shepstone and Stuartstown will probably be continued.



"The Silent Channel"



THE NORTH COAST BRANCH LINE TO ZULULAND

CHAPTER XIII

NOTE. The North Coast Branch Line is distinctly an "industrial" one, and for the main part serves the immense sugar-bearing areas, and in only a less important sense the tea-growing districts. It does not hug the seashore in the manner of the South Coast Line, but from the time it wheels away from its junction, Durban, it keeps several miles inland.

The scenery, though decidedly interesting, is not so uniformly picturesque as that of the South Coast Line, but nevertheless the branch is not without its compensating attractions.

The number of pleasure resorts is somewhat limited, the principal being Umgeni, and Mount Edgecombe, Tongaat, Umvoti, and Umhlali beaches; and the sport affording Umlalazi and Umhlatuzi lagoons in Zululand must not be forgotten.

The Durban-Verulam section of the line is supplied with a frequent service of trains, and a thoroughly pleasant afternoon may be spent in visiting either the sugar mill at Mount Edgecombe or travelling further on and touring over the old-established town of Verulam, returning to Durban the same evening. The trip to Umgeni is also a most enjoyable and popular excursion.

The through service of trains to and from the terminus of the branch is conveniently arranged to suit all passenger requirements.



GREYVILLE, the first station on the Branch, is a popular suburb, and the railway locomotive sheds are situated here. Looking on the right of the line, a good view is derived of the Durban Flat, or Eastern Vlei, stretching to a long wall of bush-clad hills. This flat is artistically decorated with fine specimens of euphorbia-cactus, black mimosa, flat crown, and palm trees, in addition to many beautiful varieties of wild flowers and ferns, and patches of the odorous arum-lily. CHURCHILL ROAD, a little further on, is a suburban stopping place, where there are situated several rifle butts.

Altitude	18 feet.
Distance	1¼ miles.

STAMFORD HILL, the following station, is a continuation of the lovely Berea ridge. It is a very

Altitude	16 feet.
Distance	2¾ miles.

favourite residential neighbourhood. A fifteen minutes' walk from the station brings the visitor to the mouth of the river Umgeni and the lagoon, where excellent surf-fishing and (with care) bathing can be indulged in. The "Lion" Match Company's premises are situated at Stamford Hill, and this factory is the largest of its kind in South Africa. About a mile in advance a high wooded hill will be observed, from the summit of which candelabra-cactus trees stand out with peculiar effect against the sky. This is Umgeni Hill, and beneath it is the village of that name, a busy corner possessing some good buildings. The principal iron-foundry in the Province is situated here, as well as extensive wool-washing mills, a large coffee factory, tannery, distillery, and a cigar and tobacco manufactory. Coast fruits are grown in large quantities, and maize is also under cultivation.

UMGENI is a suburb of Durban, and, although having a comparatively small population, is of repute by reason of its various businesses and picturesqueness. The charmingly-situated hotel near the bridge, is a favourite rendezvous. There is a special "halt" for travellers to this hotel. Glancing eastwards from the station, the eye catches a glimpse of the blue Indian Ocean at the point where the river flows into it. This is a favourite resort of anglers and pleasure-seekers. The lagoon or still pool, at the mouth, is barred from the sea by bush-studded sand-hills. Turning to the westward, the tourist will see the famous stone-quarries where the "hard-labour" gangs of convicts are forced to make the period of their incarceration useful to the community by quarrying the stones for street-hardening and harbour purposes. This work is also undertaken by Natives and Indians under European supervision.

Altitude -	- 27 feet.
Distance -	- 3¾ miles.

The Umgeni River, which divides the Durban and Victoria Counties, broad and studded with reedy islands, is a pleasant feature in the scenery. The iron railway bridge, 1,080 feet long, by its height and strength, sufficiently denotes that, when the stream is in flood, it is a formidable torrent.

The Umgeni River sand, which is said to be the best obtainable for building purposes, is loaded direct from the river into railway trucks and sent to all parts of South Africa.

The view up the Umgeni, as the train crosses the bridge, is a fair sample of the scenery to be met with in this part of the Province. On the Zululand side of the bridge, to the left, is the well-known Sea Cow Lake, until quite recently the habitation of hippopotami and crocodiles. Though out of sight, the lake is within easy walk of Umgeni Station, while on the other side of the line there is an arrowroot manufactory.

The journey onwards, through the Victoria County, lies through extensive acreages of sugar cane. The contour of the country is very uneven, and prevents the rapid progress of the train. Sugar mills are sighted ever and anon, and several brick-making works are seen as the train passes Queen's Bridge Halt.



Umgeni Bridge
(Muharram Festival. Indians drowning their gods)

GREENWOOD PARK.—The country around this attractive suburb was at one time densely wooded, and enough primeval forest remains to impart a distinct characteristic to the place. Within the last few years the population has increased threefold. There are three churches, a Government school with a qualified staff, and an hotel in the district.

Altitude	192 feet.
Distance	5¼ miles.

RED HILL, through which deep railway cuttings have been made, and at which a station has been established, has even yet a sprinkling of small game, while orchids, honeysuckle, mistletoe, and other familiar plants, together with nightshade, and canute, combine to remind the traveller that this is Africa and not England. Passing Red Hill, which is now an important suburban district, we reach

Altitude	283 feet.
Distance	7 miles.

AVOCA.—There is no village at Avoca, only a few houses, a sugar mill, hotel, hall, district Police Station, and Indian Hospital. These are all located near the station. In a pretty valley there is a sugar plantation, and the 6,000 acres estate of Messrs. Harrison Bros. commences here. An hotel adjoins the station. Leaving Avoca, after two miles steaming, the train arrives at Duff's Road, where the Central Sugar Estate commences.

Altitude	63 feet.
Distance	8 miles.

DUFF'S ROAD.—To the eastward of the station a long rounded hill, named Mount Moriah, will be noticed, its slopes seamed with rows of sugar cane. To the westward are some old-established estates, and the Umtata Distillery. There is an hotel and country store, also a small Wesleyan Chapel and graveyard, where sleeps many a staunch old colonist, and the well-known Inanda Mission Station is eight miles away.

Altitude - - 183 feet.
Distance - - 10½ miles.

PHŒNIX, the next stoppage, has no individual attraction, and the train wends its way through a country almost completely covered with the broad sword-like leaves of the sugar cane, in all stages of growth, from tiny little green shoots to well-grown plants eight feet in height. Experiments are being made in wattle growing in the district.

Altitude - - 115 feet.
Distance - - 12 miles.

MOUNT EDGECOMBE, noted as the station for the factory of the Natal Estates, Limited, is entered. The original cost of this mill, machinery and estate was £100,000 but since then its value has increased to £150,000. Its cane-crushing capacity is 800 tons per diem, and about 70 tons of sugar were manufactured per diem during the last cutting or harvest season, between June and March. The output of sugar for the seasons 1909-1910 was 9,100 tons, being an increase on former outputs —owing to superior plant now being in use.

Altitude - - 201 feet.
Distance - - 14 miles.

The new 14 roller crushing plant, said to be one of the most up-to-date in the Province, extracts a ton of sugar from about 11½ tons of cane, whereas formerly 16 to 18 tons of cane produced only one ton of sugar.

As one approaches the factory from the south, long sheds containing bagasse (the refuse of the cane after the juice has been extracted) stand in ranges. Open spaces devoted to drying this article, which is used for fuel, flank the sheds. Next to these is the tall chimney, ninety feet in height, beside which is the mill house. In front of the crushing door, in high piles, the uncrushed canes lie awaiting treatment, while long lines of trucks, with towering loads of saccharine-yielding canes, stand ready for discharge. A travelling table, attended to by rows of coolies, bears a constant supply of the cane to the rollers, which are just inside the entrance. These rollers are huge, grooved, iron affairs, set in such a position as to extract the juice, and pass the bagasse out at the other side of the mill. The canes are squeezed nine times, to ensure complete extraction. All this time a constant stream of juice is falling in a veritable saccharine cascade into the broad troughs prepared for its reception. The grey watery-looking fluid then passes through the various processes of boiling, condensing, purifying, crystallizing, and finishing, until it merges in beautiful snow-white, golden-yellow or brown crystals. It is not necessary in this place to deal with the manufacture in detail, but the visitor to the mill may be assured of a hearty welcome. The extent of this company's estate is over 21,000 acres, and the careful management carried out on practical and economical lines, cannot fail to win approval from the most casual. The latest



1 Cutting Sugar Cane *2 Mount Edgecombe Sugar Mill*

scheme is that for utilising the refuse from the mill, which formerly found its way to the streams and caused their pollution. It is now collected in huge tanks, pumped three-quarters of a mile, and then distributed over the land. It makes excellent manure. The estate employs 250 Kaffirs, 1,700 Indians (men, women and children), and about 40 white families as managers, sub-managers, engineers, and artizans.

The Managing Director of the Natal Estates, Limited, has kindly supplied the following particulars for publication regarding the working of the factory :—

The factory can handle up to 800 tons of cane daily and has an annual output of from 10,000 to 12,000 tons of sugar, the greater part of which is refined in the Province. White crystals for direct consumption, are also manufactured. On arrival at the factory yard, the loaded trucks are weighed and are then discharged upon a long travelling band or conveyor which carries the cane forward into the factory and discharges them into the jaws of a powerful mill. The 14 rollers of this grinding apparatus are so arranged that the canes are squeezed nine times in succession, the juice pouring from the rollers into suitable receivers whilst the crushed fibre passes from one set of rollers to another, emerging from the last in a finely divided condition and containing a minimum of unextracted juice. Extraction of the juice is still further ensured by spraying water upon the fibre before the final squeeze.

The fibre being now deprived of all extractable juice, falls upon another travelling band which conveys it from the mill to the furnaces and automatically distributes it to the various furnaces where it plays the rôle of coal without the inconvenience of a coal bill.

The juice is measured in large tanks purified by the addition of lime and sulphurous acid, heated to a temperature of 240 degrees Fah., and the impurities thus allowed to subside. The clear juice is subsequently boiled in vacuo, first to a thick syrup and then to a semi-solid mass of crystals, which increase in size in proportion as the water is removed by evaporation. The vacuum passes it now discharged into another vessel, fitted with revolving paddles and designed to facilitate crystallisation while the hot mass slowly cools.

The last stage of manufacture consists in separating the solid sugar (crystals) from the adhering fluid (treacle), and this is effected in a number of perforated steel drums which rotate 1,200 times per minute. The fluid treacle is driven into an external casing by centrifugal force, leaving the crystals inside the drum, which is then discharged upon a travelling band, a mechanical elevator raises the finished products into overhead storage bins, whence it gravitates into sugar bags and is weighed.

These numerous operations are regulated and controlled by means of delicate chemical tests in the laboratory. Juice, syrup, sugar and treacle are here analysed daily so that the many losses which may escape detection by the eye may be promptly located and prevented.

A convenient hotel adjoins Mount Edgecombe Station. The sea is four miles away, and above the beach several summer residences have been erected. The scenery along the rock coast, and in the forest near by, where charcoal burning is carried on, is very beautiful, and only the pressure on space precludes the further sounding of its praises. It should be briefly recorded that good bathing, fishing and botanizing may be obtained. Shortly after quitting Mount Edgecombe for Ottawa, some fine specimens of date palms are to be seen.

OTTAWA.—The groves of trees planted around this station serve to impart a pleasant aspect to the place. The sugar estates of several veteran planters are in the neighbourhood. At the mouth of the great Umhlanga River there is some very fine scenery. The lagoon here is navigable for pleasure boats for two miles, but the right of fishing is reserved.

Altitude - - 139 feet.
Distance - - 16½ miles.

Advancing from Ottawa, the train speeds past an open country, under a forty-feet viaduct, and then passes through a tunnel, 113 feet long, at Kahtskop. On emerging from the latter, and turning a bend in the line, a glimpse of the Umhloti river valley and the town of Verulam is obtained, and a moment after, the train steams into the station.

VERULAM TO STANGER

VERULAM.— The first sight that greets the eye is the comfortable two-storeyed Railway Hotel. Next come the Wesleyan Chapel and the market square, on the northern side of which is the Court House. There are five long parallel, and three cross streets in Verulam. Several stores and many dwelling-houses line the main thoroughfare. A three-storeyed corn and general mill, moved by water power, is situated on the banks of the Umhloti River, at the far end of the town, a wagon building establishment, and three tobacco and cigar factories, and a tannery are also in

Altitude - - 167 feet.
Distance - - 19¼ miles.



1—Tobacco and Cigar Factory *2—Packing Cigars*

working. A good view of the town can be obtained from the Zululand Road, rising towards Fuller's Flats, on the further side of the river, and from Kahtskop to the southward. From this latter vantage-point the scene is interesting. In the near foreground the Indian Hospital, with its red roof, forms a pleasant contrast to the somewhat stunted foliage of the mimosa which skirts the highway, further on the cemetery, with its cypress trees and well-designed tombs, occupies a rounded hill, and beyond it the fine Government School is seen, where a large number of children are daily instructed under competent teachers. Below this again is the church, and then the main street with its stores and residences trending towards the river. In addition to the hospital and school, in the way of institutions, there are a Public

Library (containing 2,000 volumes, amongst which there is a goodly sprinkling of standard works, and a regular supply of periodicals and journals), a Recreation Room, Volunteer Hall, Rifle Association, several Benefit and Missionary Societies, Loyal Women's Guild, Literary and Social Club, Branch of St. John's Ambulance, Church Guilds and Temperance Lodges, and Wesleyan, Episcopalian, and Roman Catholic places of worship. The Victoria County Club is also located here. A Police Camp has been established, while Harvey Park is another recent acquisition to the town. Verulam was founded in 1850, and was named by the original settlers after St. Alban. Its population is about 500 whites, and 700 coloured. The assessed value of its properties is about £50,000. The climate is very healthy, and the death rate very low. A loan has been floated for the provision of a permanent water supply. Within five miles of the town, to the eastward, the Umhloti Beach serves the district as a seaside resort.

The trade depends principally upon the sugar industry, and the original forest lands are now supplanted by sugar-cane, extending for miles around. The "free" Indian is prominent in the district, and chiefly pursues the avocation of a vegetable and maize cultivator. The tropical fruits grow abundantly, while mealies and beans are large productions. Tobacco-growing has also made good strides. The tea industry has not yet visited the district, although it is well-suited to this enterprise. To the westward, at a distance of eight or nine miles out, the long-established LINDLEY MISSION STATION is located, where the student of African character will find ample scope for investigation. Close to the Mission House, an establishment devoted to the training of native girls is placed. A laundry business is carried on by the industry of the girls, and a great deal of Durban's washing is done here.

Before leaving Verulam, and its environments, it may be alike interesting and relieving to peep at the wild and romantic country round about the Inanda range of mountains, which adjoin the Mission Station. These bold and bluff-like buttresses of nature jut out into a veritable wonderland of beauty—where foaming rivers, black forests, cañons, and long lonely plains, are woven together into a mass which only a trained pedestrian will care to negotiate. The Umzinyati River here plunges over a sheer cliff of over 200 feet. Though this river is by no means large, it makes up for it in foam, sparkle, and dash. It is environed by lonely forests, whose silence is seldom disturbed by aught save the barking cry of the baboon, or the wail of the isinkwe (night-walking lemur). On the sandstone cliffs, and in the recesses of the thickly-wooded chasm—the haunt of the "dassie" or rock-rabbit—many beautiful plants may be found. Within a few miles circuit, about six native tribes are located. Here the tourist, having studied the Christianised native, can revel to his heart's content in barbarism as dense and unsophisticated as he could find in the depths of Matabeleland. Women toiling in the corn-fields, warriors in all the glory of plumes and spears, chieftans dwelling in semi-royal state, war dances, and barbarous festivals. If his temperance principles are not unalterable, he may partake of kaffir beer out of a real calabash, and recognise

in it the flavour of stale yeast. In another section the natives and their ways may be touched upon, but at present a few hints as to how to visit the district may not be out of place. The journey must be made on horseback. Fairly good animals may be obtained in Verulam at a cost of 10s. per diem; a native guide will cost 5s. a day; while 10s. invested in provisions will ensure the visitor against privation, as native diet is not always palatable. An hour's ride will bring the traveller to the Mission Station already mentioned, where directions as to roads may be obtained. Two days will be sufficient to cover the journey. The Inanda range is about 2,500 feet above sea-level, the blue sheen of which can be clearly seen from its summit.

Excellent boating and fishing is obtained here. The principal articles of produce dealt with are sugar, tea, maize, fruit, tobacco. The Central Sugar Mill is located here.

Between Verulam and Tongaat the station of Mount Moreland occurs with halts at Umhloti and La Mercy.

MOUNT MORELAND serves the Umhloti Central Company's Sugar Estate,

Altitude	56 feet.
Distance	23 miles.

while at La Mercy there is a stone quarry from which a good building stone is extracted and dressed. These operations can be witnessed from the train, and further on there are some pretty pieces of bushland to be passed. Good fishing can be obtained in the district, and the magnificent views give work to the artist and photographer. Maize and sugar thrive on this soil.

TONGAAT, in the post-cart days, was known as the village of Victoria. It is the

Altitude	64 feet.
Distance	29½ miles.

centre of a thriving and prosperous district, land having risen in value very considerably since the extension of the railway some fifteen years ago. There are three hotels—the "Railway," near the station, the "Chelmsford," and the "Fairbreeze," some distance from the station on the main road. Refreshments are also obtainable at the station.



Indian Fruit Sellers, Verulam

There are two places of worship—St. John's Church and the Wesleyan Chapel. A public hall was erected 13 years ago to commemorate Her late Majesty's Diamond Jubilee. Here all the public functions and entertainments are held. The village is also provided with a very creditable Government-aided school, with library attached. Nicely-situated European residences dot the hills round about, whilst the heart of the village itself is also entirely inhabited by trading Arabs and Indians.

The large sugar-mill of the Tongaat Sugar Co., Limited, is adjacent to the station, and is well deserving of a visit, it is equipped with the most up-to-date sugar-making machinery, the economic and labour-saving principles of working in all the numerous channels, from the cane field to the "pocket," speak volumes for the progressive and enterprising directorate and management, and the total area of the estate is about 6,000 acres, 5,000 of which are under cultivation. A considerable quantity of cane is purchased from other planters. The output is roundly 8,000 tons per season, and the full capacity of the mill is 9,000 tons. The cane fields are served by 24 miles of a light 24-inch-gauge railway, worked by three locomotives and mules, and two steam ploughs are in use. The estate employs, in its various branches, some 1,200 Indians, besides a number of Europeans. The process of sugar manufacture has already been briefly described under Mount Edgecombe, and with a few technical exceptions, this system also obtains at Tongaat.

Some twenty miles north of Tongaat, near the "Esidumbeni" Mission Station, is a curious cave, known as the "Indumeni," at one end of which a huge pillar of rock stands like a petrified sentry. The roof of the cavern is formed by a single stone weighing some two or three thousand tons, and the main chamber would shelter several hundred persons.

About a mile beyond the railway station, the Tongaat River is crossed by a strong iron structure, which serves the dual needs of train and wagon bridge. Further on the landscape loses much of its sugar-cane mantling and becomes more pastoral, although there are still occasional estates, as FRASER'S SIDING indicates. UMHLALI VILLAGE stopping place is then reached. This is used by visitors to the Umhlali Beach ($3\frac{1}{2}$ miles), where the fishing and bathing are said to be the best on the northern coast. A good number of people are attracted hither, some of whom have cottages on the beach.

The principal products are—maize, fruit, sugar, and tobacco.

CHAKAS KRAAL is a pleasant railway station. The district is favourable for all the coast cultivations, and the chief products are corn, maize, fruit, sugar and tobacco. A coal seam has been discovered and only a few miles away gold is being prospected. Petroleum has been tapped two miles distant from the station.

Altitude - - 47 feet.
Distance - - $40\frac{3}{4}$ miles.

It is also within the neighbourhood of the favourite Umhlali Beach aforementioned.

Heading now for Stanger the intermediate halts of TINLEY MANOR and GROUTVILLE are passed. This district is rapidly advancing owing to the development of the Sugar Industry.

The chief credit for the large increase in sugar production must be attributed to the extension of the business of Sir J. L. Hulett & Sons, Ltd. They have now three large sugar mills, one at Tinley Manor, another at Darnall, a third at Amatikulu, and a fourth at Umhlatuzi, Zululand, to crush the cane that has been granted under Government leases in that most fertile district.

As a natural corollary to sugar mills, this firm has erected an up-to-date refinery at South Coast Junction, where a large amount of raw sugar from the mills will be resolved into best refined sugars, and it is this class of sugar which always finds most favour amongst consumers and can compete satisfactorily with any that can be imported.

A tramway line from the site of the mill to Chakas Kraal station is being laid down.

The Groutville Mission Station is situated in the locality. The country round for miles is of gentler cast and more extensively wooded, while the land is plentifully besprinkled with kaffir kraals.

STANGER is historic, and was the capital of the blood-thirsty Zulu king Chaka, or Tshaka. From here "the conqueror, the scourge, and the pride of all South African natives," issued his mandate of life and death. Here, too, it was that the usual fate of the tyrant overtook him and he fell slain by the spears of his own kinsmen. His burial-place is within a few yards of the scene of his assassination—about a quarter of a mile from the present village. Truly, the Stanger of to-day is very different from the "Duguza" as it was, and still is, called by the natives. Now a peaceful little township, with a market square flanked by hotels and stores and other buildings, replaces the military huts, with their throngs of plumed warriors. Round the grave of Chaka a few erven have been reserved by the Government.

Altitude - - 143 feet.
Distance - - 52 miles.

The place was named after Dr. Stanger, the first Surveyor-General of Natal. It has a strongly-built laager, Court Houses, and Magisterial offices, two comfortable hotels ("Victoria" and "Stanger"), two churches (Church of England and Wesleyan Methodist), a large Government school, a Masonic Hall, a "Diamond Jubilee" Public Library and Reading-room, and a fine castellated Police Barracks. The population is about 250. It is five miles from the sea, and at the mouth of the Umvoti seaside cottages can be hired, good fishing and fair shooting being obtainable in the season.

Stanger itself is growing in importance, and, as is well-known, it is the centre of the largest tea plantations in the country. Although the railway arrived only in August, 1898, its benefits are evident, and a good fillip has been given to the various cultivations—tea, sugar, tobacco, fruit, corn, and maize.



Kearsney Light Railway

The Government Experimental Farm is within the neighbourhood of Stanger, being only a mile distant. Good fishing and boating is to be obtained at the mouth of the Umvoti River, which is a favourite resort for picnic parties and photographers. The principal products of the district are—maize, corn, tea, fruit, sugar, and tobacco.

TEA DISTRICT.

Alighting at Stanger the visitor proceeds by the light railway belonging to Sir J. L. Hulett & Sons, Ltd., to their tea plantations, the two chief of which are situated at Kearsney and Kirkley Vale.

The construction of this admirable little line was undertaken on the initiative of Messrs. Hulett, now Sir J. L. Hulett & Sons, and a laudable enterprise it is. The total cost was £18,500, which sum includes all station buildings and houses, engines, rolling stock, fencing, etc. The railroad built on the two-feet gauge, is splendidly laid with the 30 lb. type of metals, through country undulated and picturesque. The ruling gradient is 1 in 30, and the locomotives employed are respectively 50 and 30 horse power, the larger of which can haul with ease a load of 20 paying tons.

The railway was opened with great éclat on the 2nd January, 1901. It is worked by Messrs. Hulett's own staff—station master, platelayer, and train men—and is equipped with two engines, two carriages and five trucks, together with all necessary buildings and appliances. First and third class passengers are conveyed at a throughout rate each way of 1s. first class, and 6d. third class.

The line enters a very productive country, and, besides proving an immense advantage to Messrs. Hulett's businesses, and to the planters and farmers in the Kearsney and neighbouring districts, it attracts a considerable native passenger traffic. The wagons carry a net weight of five tons, being principally used for conveying the heavy tea traffic from the mill and returning with coal and stores. Passengers and goods are of course transferred at the Stanger station to the Government trains. The Kearsney train makes connection at Stanger with the passenger trains to and from Durban.

This novel and acceptable method of visiting the principal tea estates in Natal is delightful in itself, and is only surpassed by the pleasure of touring over the tea manufactory and the splendid demesne of the founder, Senator Sir James Liege Hulett, J.P., Speaker of the Legislative Assembly for many years, and a very valuable and progressive colonist. Those who elect to go to Kearsney may reckon upon a kindly welcome from that gentleman, or his representative. Should the train not suit the tourist, however, a most agreeable six-miles drive from Stanger will land him at the mill doors at Kearsney.

The Kearsney factory is one of the most perfect of tea establishments. It consists of a large building constructed of brick and cement, five floors in height, giving a withering space and manufacturing capability of 1,500,000 lb. of tea per annum. The dimensions of the main withering-floors are each 150 by 70 feet, to which there are annexures for engines, furnaces, and boilers. The work of all necessary departments in connection with, not only the manufacture of tea, but its packing, are carried out under one roof, and boxes are locally made, very often from Natal timber. Steam saw-mills and carpenters are employed on the estate, the lead for lining the boxes and packing the tea is imported from London, while the factory is fitted with most modern machinery, the whole of which is operated by electricity.

Until one has paid a personal visit to these gardens, and seen what is going on, it is impossible to form a just estimate of the undertaking. Founded some 30 years ago, on a very small scale, the estates have gradually been enlarged, time after time, until there are at present 2,000 acres under tea cultivation at Hulett's Estate. To drive mile after mile under avenues of trees between the gardens, viewing on every hand the undulating land covered with the neatly-pruned plants, is a delightful experience.

At different spots, about three miles apart, are situated the two immense factories, said to be the most up-to-date tea factories in the world. They are capable of manufacturing between them 15,000 lb. of tea per day during the season, which ranges from August to June.

The processes of tea-making are most interesting to watch—including the work of the withering-room, the rolling machines, the fermenting, cooking, sorting, blending, packing, labelling, loading, etc. What with the din of the machinery (worked by a gigantic electrical plant from the Umvoti River), the constant bustle—without confusion—a blind visitor might imagine a great Lancashire cotton factory had been dumped down in this quiet and beautiful district of the Garden Province. The whole enterprise is a marvellous example of what can be accomplished by indomitable pluck and perseverance.

It is estimated that the total acreage in the Province now planted with tea, fully bearing, amounts to at least 4,000 acres, and that about a further 2,000 acres are planted with tea not yet in full bearing. The estimated total







Kearsney Tea Estates

1—Old Tea Factory *2—New Tea Factory* *3—Picking Tea*

yield of manufactured tea for the season closing May, 1910, amounts to 2,092,000 lb., and it is expected that nearly the whole of this output will be disposed of in South Africa. The Tea Industry is not subject to erratic movements like some industries, because it takes years for the tea plant to fully develop, but steady advances are made from year to year. The present output has not yet reached half the total amount of tea consumed in South Africa, so that there is ample room for further development as it competes satisfactorily with the imported article.

Leaving Stanger the NEW GUELDERLAND Halt is soon reached.

DARNALL is the next station, and here a large sugar mill, equipped with the most modern machinery has been built. The "Aroma" Tea Estate is about three miles from Darnall.

Altitude	220 feet
Distance	59¼ miles.

SINKWAZI is the last halt before Lower Tugela is sighted. This portion of the coast is very fertile, and, with the facility afforded by the railway, much is being done to develop its agricultural and industrial capabilities. The soil is peculiarly adapted to tea and sugar growing.

Altitude	87 feet.
Distance	62 miles.

TUGELA, as its name expresses, is situated on the banks of the largest and most historical river in the country. The Tugela here divides the two largest territories of Natal and Zululand, which are connected, about a mile beyond the Tugela station, by one of the finest and most massive bridges in the Province, 1,330 feet long. This gives a good idea of the breadth of the oft-times treacherous stream. The village is prettily situated in a valley, and contains a small hotel and a few private habitations. Fort Pearson, one of the first fortifications formed during the Zulu War of 1879, and the burial place of a number of British soldiers, is about six miles off on the south bank of the river. From this point that war may be said to have started. The Tugela was at one time the terminus of the North Coast Line and the station for Eshowe, but with the opening of the Zululand Extension the daily post cart service with Eshowe has been transferred to Ginginhlovu, 20 miles further on.

Altitude -	- 47 feet.
Distance -	- 69¼ miles.

THE ZULULAND EXTENSION

The Zululand Extension from Tugela to Somkele (the terminus) is 98 miles in length, the last section of which was opened in September, 1903. The service of trains with Ginginhlovu (20 miles from Tugela) is a daily one, and with Somkele, tri-weekly.

Government coast farms extend from Tugela to Umhlatuzi.

Leaving Tugela we immediately cross a small spruit; a mile beyond, the





1.—Bridge over Tugela *2.—Lower Tugela Rapids*

long bridge over the great Tugela is negotiated, and our path continues to lie through rich and fertile sugar-cane fields. MANDINI is the next halt overlooking the rugged beautiful valley of the Tugela. Continuing our journey through waving fields of sugar-cane we reach the station of

INYONI, the landscape being much the same with its sugar-cane clad hills and dales. Proceeding northwards we reach country which has not yet been fully taken up by sugar planters, where the bee-hive huts of the "lord of the land" occur with tolerable frequency, and occasionally a more pretentious habitation of the educated kaffir meets the eye: here and there a naked piccaninni herds his father's goats, a lusty Zulu swaggers joyfully with sticks and shield to some friend's marriage feast; a bevy of sable maidens gaze wonderingly at the passing train

Altitude	181 feet.
Distance	80 miles.

—hiding the while their shapely forms behind the scanty folds of their single garment; a curly head peeps diffidently from an elevated shelter of grass overlooking a native corn field.

Passing BENNETT'S SIDING.

AMATIKULU is the next station. In this district thousands of acres are under sugar-cane cultivation, all the allotments being taken up, and the large sugar mill, previously mentioned, is also here. There is a hospital, school, and hotel, all within half-a-mile of the station. Plenty of good fishing is obtainable in the Amatikulu River, which is only a quarter-of-a-mile from the station. We now come to

Altitude 101 feet.
Distance 86 miles.

GINGINHLOVU, the station for Eshowe, Melmoth, and Nkandhla districts. The post cart runs daily between Ginginhlovu and Eshowe and between Eshowe and Melmoth. A good hardened well-graded road has been made between Ginginhlovu and Eshowe by the Government with the intention of it being used by motor vehicles. A traction engine is in use on the Eshowe Road, which has considerably reduced the cost of transport. There is an hotel, store, butchery, railwaymen's quarters, and the premises of the forwarding agent, these are all its immediate possessions. The inhabitants, however, in and around are very enterprising, and they have formed rifle and farmers' associations, as well as a sporting club, under whose auspices most successful race meetings are held at intervals throughout the year. Ginginhlovu is not without some historic renown. Two miles away on the road taken by the post cart, can be pointed out the scene of a big engagement with the Zulus during the war of 1879. The Government has opened up certain lands along the railway line and a number of farms have been taken up. Sugar-cane is being largely planted. Farms are still available and prospective settlers should put themselves in communication with the Secretary of the Agricultural Department who will furnish particulars. The land is admirably suited for the cultivation of sugar, cotton, wattles, and maize. The hotel is within 100 yards of the station premises.

Altitude 139 feet.
Distance 90 miles.

After Ginginhlovu the landscape is more picturesque. Beyond EMOYENI (a halt), some exquisitely pretty views may be obtained—with countless clumps of giant palms distributed artistically over the land, the ocean appearing suddenly at hand, and ever and anon long stretches of virgin bush and plots of ripening maize and kaffir-corn. The hotel is within 100 yards of the station premises.

MTUNZINI (UMLALAZI) is the next station and seat of magistracy. The residency, court house, and gaol, and police barracks are descried on the summit of the hill at the back of the station. The hotel is a little distance beyond. This is an excellent district for farmers, while the existence of coal and plumbago has been definitely proved.

Altitude 43 feet.
Distance 103 miles.

The Umlalazi River and lagoon, where splendid shooting and fishing may be enjoyed, are situated about one mile from the station and can be seen in

passing towards the succeeding halting places of PORT DURNFORD and UMHLATUZI through a singularly charming park-like country. The Umhlatuzi lagoon in which, as in all other lagoons and lakes on the Zululand coast, the crocodile and hippopotamus sport unmolestedly, is a magnificent sheet of water and has attracted the Province's attention on more than one occasion as an eminently suitable site for the future establishment of a port. The lagoon is clearly distinguished in traversing the intervening section of the line to Empangeni.

In the vicinity of the Umhlatuzi River a large sugar mill has been erected.

EMPANGENI.—We are now in the very heart of a rapidly developing sugar-cane territory, and the latest reports are that from the point of view of this industry Empangeni will become one of the most important stations along the Zululand line. One of the chief points of interest in the neighbourhood is the Government Experimental Forest, which covers a square mile of ground. There is no hotel here, but the pioneer store will put up visitors. There is a Magistracy attached to this district.

Altitude - - 212 feet.
Distance - - 123 miles.

Passing onwards to ENSELENI the prospect *en route* is agreeable. To the left is a range of mountains; and to the right the Umhlatuzi River loops itself in the valley below; and the line itself follows a tortuous course. Soon we cross the wide and lovely river Empangeni, a strikingly placid, tree-bordered stream, flowing in graceful curves. Now and then alternating with native cultivations the sight is gladdened by glimpses of smiling park-land, lily-covered pools, reed-blocked rivulets, and perhaps a gorgeously golden sunset over the western hills. Thus to the halting place of KWAMBONAMBI and ETEZA. Just beyond the latter Lake Eteza is skirted. Further on the pretty and unruffled Umfolozi river occurs and shortly afterwards UMFOLOZI halt is passed. Continuing our journey the train passes through territory which offers good opportunities for sugar cultivation and general farming. Between Umfolozi and Somkele is the stopping place of UMDULUMBA and there is little of particular attraction in this stretch of undulating veldt.

SOMKELE, the terminus of the line, is ultimately reached. This station is the nearest point of access to the following places:— St. Lucia Lake, the largest body of water in the Province; St. Lucia Bay, where surveys have been made for a port; and Cape Vidal where the famous treasure ship *Dorothea* was wrecked. Twenty-five miles away is Hlabisa, a magisterial settlement. There is a comfortable hotel at Somkele, and the place is frequently made the starting point for shooting parties bound for the interior. Buffaloes, zebras, wildebeeste, rhinoceros, and hippopotamus, comprise the larger game; while amongst birds, the bustard, koran, partridge, quail, geese, ducks, etc., are plentiful. Various species of buck are found in great abundance.

Altitude - - 419 feet.
Distance - - 168 miles.

Although Somkele and some of the other stations are within the malarial fever belt, being situated over 100 feet above sea level preserves them from its more virulent effects during the few months of the fever season. This section of Zululand is practically all gold bearing, and has been extensively prospected. The new Zululand Collieries are located about half a mile from Somkele station, and anthracite coal has been discovered.



Hotel at Somkele

CONCERNING ZULULAND

The territory of Zululand was annexed to and became a province of Natal in December, 1897. Its area is approximately 10,460 square miles and its population, according to the last Census of 1904: Europeans 1,693, Natives 203,373, Indians 120, and coloured people 100. Since 1904 there has, however, been a considerable influx of Europeans and Indians; the latter are only allowed to remain in the country for labour purposes, and large numbers have recently been introduced to work on the sugar estates, which industry could not be carried on successfully with the indigenous labour of the country.

Zululand is divided into eleven Magisterial Divisions, viz:—Eshowe, Entonjaneni, Nkandhla, Nqutu, Mahlabitini, Ndwandwe, Umbombo, Ingwavuma Hlabisa, Lower Umfolozi, and Mtunzini, all of which are connected by telegraph with the rest of the Province. Telephone communication can also be had from Eshowe with Melmoth, Nkandhla, Mahlabitini, Nongoma, Ubombo, and Ingwavuma, but at present this is confined to Government offices and not accessible to the public.

The seats of Magistracy are on an average 30 miles apart and the roads thereto are for the most part fairly good. Ginginhlovu is connected with Eshowe by 17 odd miles of splendid macadamised road, upon which it has

often been urged that motor transport should be tried, but up to the present nothing more advanced than a traction engine has been introduced, but that with excellent results.

There is a daily post-cart service from Ginginhlovu to Eshowe, and thence on to Melmoth (also daily), and a tri-weekly service from Dundee to Nondweni, the once busy mining centre.

Trade is carried on by European storekeepers throughout the country, who under their license are bound to provide accommodation for the travelling public; no licenses are granted to Indians or Asiatics.

AGRICULTURE

The opening of portions of the country for European occupation commenced after the publication of the Zululand Lands Delimitation Commission's Report in 1905, and despite the Native Rebellion of 1906, and the unrest which ensued until Dinizulu's arrest and incarceration in December, 1907, also the decimation of most of the cattle from East Coast fever, much useful work has been done on the lands taken up by settlers in the different localities thrown open, viz.:—

1. COAST.—Practically all the land adjoining or near the railway from Lower Tugela to Empangeni worth taking up is now occupied, and what a few years ago was a barren wilderness is to-day peopled with a prosperous community and covered with thousands of acres of sugar-cane, the yield of which in some of the most fertile parts is exceptionally heavy, up to nearly 70 tons per acre having been trucked from near the Umhlatuzi River. Large mills have been erected by Sir Liege Hulett & Sons at Amatikulu and Umhlatuzi.

Planters have been much hampered through the loss of cattle from tick fever, and mules and horses from horse sickness and other diseases, but those who have struggled through the many difficulties which have confronted them at the outset, and safely reached the producing-stage have a prosperous future before them.

Sugar is practically the only crop grown on these lands at present, although enterprising farmers, who have large steam-ploughing outfits, have gone in for extensive mealie cultivation.

When the fertile valley of the Umfolosi has been opened up there will, no doubt, be no lack of applicants for land, which in this part will require considerable draining. Precautions have to be taken against malarial fever, but fortunately this has not proved to be so general as was anticipated, and with increased cultivation and drainage is hardly likely to prove a serious hindrance.

2. MIDDLE VELDT.—A stretch of land extending from Fort Yolland to the coast lands beyond Eshowe has been surveyed into farms, the majority of which have not yet, however, been taken up. Lack of a railway, or other means of cheap transport, combined with an absence of any local market, no doubt deter settlers from taking up farms in this locality. A few hundred acres are already under black wattle, which flourishes in this part.

3. HIGH VELDT.—Farms have been surveyed on the Qudeni plateau, and also near tbe 'Nqutu Township. These localities are very fair stock districts, being situated at a high altitude. Should stock thefts not prove too troublesome, stock farming should flourish, there being a happy absence of the many diseases so prevalent in other parts of Zululand. Qudeni is at present a long distance from markets and difficult of access, but many of the farms are already occupied.







Zululand

1.—Crossing the Tugela 2.—Oxen grazing 3.—Sugar Cane

4. OTHER LAND.—The farms in Proviso B. (Emtonjaneni Division) are for the most part uncultivated, although a few owners have of late years planted extensive areas of black wattle.

Farms have also been laid off in the rich valley of the Umhlatuzi River, situated between Eshowe and Melmoth, but owing to markets being very distant, only one or two lots have yet been taken up.

Other land allotted for European occupation in the Province has not yet been surveyed into farms although there are tracts of land in the low veldt very suitable for the cultivation of cotton, tobacco, rice, tea, coffee, fibre, rubber, and other products, were it not for the prevalence of malarial fever.

MINING

Zululand is undoubtedly rich in mineral deposits. Coal, iron, copper, gold, silver, galena, tin, graphite, mica, asbestos, nickel, wolfram, etc., have been found, and the existence of other minerals is rumoured.

Difficulty in obtaining capital has prevented much work being done of late years, but it is generally felt that all needed to restore confidence is the exploitation and proving of one or two good paying properties, which would soon result in considerable mining activity. Operations at present are somewhat dormant, the Zululand Collieries (anthracite coal) at Somkele being closed down and little work carried on at the various gold-fields. A little activity at present exists in the Ubombo Division. where prospecting for diamonds is now progressing.

ESHOWE, the principal town of Zululand, has a total population of about 500, and is charmingly picturesque. It is situated on a table-land, about 1,800 feet above the level of the sea, and the climate is exceedingly fine.

The town is remarkably well set-out, English-looking and clean, and the residences are stylish and prettily embowered. There is every reason to believe that, with a railway established from Ginginhlovu in place of the present expensive post-cart, Eshowe will be much resorted to by coast planters and their families during the hot summer months, possessing as it does a healthy climate, first-class Government School, and the reputation of being one of the prettiest places in South Africa.

There are some good buildings, Government and otherwise, viz :— the Episcopalian Church, Government School, Central Gaol, Residency, Court Buildings, Post and Telegraph Offices, Natal Bank, and Masonic Hall. There are, of course, the usual stores and shops, two good hotels (" Eshowe " and " Provincial "), Wesleyan Church, a Library, various athletic and social clubs, Rifle Association, and Cadet Corps. Eshowe is the headquarters of the Zululand Mounted Rifles (numbering nearly 200 members). This useful little corps was inaugurated in 1904 and did splendid work during the recent rebellion of 1906.

There is also a Hospital, established in commemoration of the late Queen

Victoria's Jubilee. It does good, and much appreciated work, while the Norwegian Mission Station, which presides over some 500 natives is a pattern of usefulness. Another of the town's unique enjoyments is a large open-air and secluded Swimming Bath. This has been made in one corner of the lovely "Bush" and can be exhausted and replenished with fresh river water at will. The "Bush" referred to encompasses some hundred acres of enchanted wood land. Pathways traverse it in all directions, and there are the most beautiful avenues and leafy alcoves for those who wish to hear

> "The sweet leaves playing with the subtle air
> In dainty murmuring."

Eshowe possesses some historic renown. Amongst the many grassy hills and mountains which surround it, that of Signal Hill, a mile or so away, is pre-eminent in height and reputation. It was the signalling station with the Bluff during the Zulu War, hence its name, and it will be remembered that, after the Isandhlwana disaster, Eshowe was fortified, and held by Colonel Pearson and 1,300 men for two months against an expected attack from the main Zulu army. The assault was never delivered, however, and the beleagured town was eventually relieved by Lord Chelmsford's column. The site of the old fort and the military graveyard will be found some two miles out of town, near the Norwegian Mission Station.

MELMOTH is reached *via* Eshowe, and is 30 miles north of the latter place. It is the centre of a Dutch farming locality, and the seat of the Magistracy of the Entonjaneni District. There are but few buildings beside the Court House, Residency, Natal Police Barracks, and Dutch Reformed Church.

ULUNDI, near the seat of the Mahlabitini Magistracy, the place of Cetshwayo's royal kraal, and scene of the last great battle of the Zulu War, is about 30 miles north of Melmoth.

MOUNT PROSPECT, which figured in the Zululand operations during the Boer War, is not far from Melmoth, while FORT ITALA, whose successful and heroic defence against the formidable attack under Commandant General Louis Botha (in his attempt to re-invade Natal in October, 1901) excited such universal admiration, is about 30 miles away.

On the whole Zululand is well-watered, excepting in some parts of the low veldt, and there are some fine indigenous forests in the country. In several localities, the Nkandhla Division, perhaps, particularly, the scenery leaves nothing to be desired, and there are, moreover, very few spots which do not possess some historic interest, Zululand having ever (until recent years) been the scene of much strife and bloodshed.

Good shooting (both fur and feather) can be obtained in some parts of the Province and the mouths of the larger rivers afford, at certain times of the year, excellent fishing.

Eshowe

1.—General view of Eshowe 2.—Government Gaol 3.—Government School 4.—Main Road

Native education is conducted by the Bishop of Zululand, and the Norwegian, Swedish, Catholic, and other Missions and Societies, their schools being aided by grants from Government.

Zululand sends one member to the Union Parliament and to the Provincial Council respectively.

The Province has progressed steadily during the last few years, and the new railway line, which will run along the coast lands, terminating at the extensive Hlabisa Coalfields, near St. Lucia Bay, a distance of a hundred miles from Tugela, will prove a very material incentive to rapid and important developments in the future. The districts served are suitable for the cultivation of sugar, tea, coffee, tobacco, maize, rice, and India-rubber, and will undoubtedly draw many enterprising settlers, when arrangements are made for the opening of the lands.

Game is fairly plentiful, and specimens of most of the fauna indigenous to the country are preserved, but may not be shot without special permission. The rivers Amatikulu, Umlalazi, Umfolozi, and Umyalazi afford excellent fishing.

The future of Zululand is full of promise.



Native Women



Tugela River in Zululand



BRANCH RAILWAYS

CHAPTER XIV

NOTE—SOUTH COAST, BLUFF, UMZINTO, & ALFRED COUNTY BRANCHES, *see Chapter XII.*
NORTH COAST BRANCH, *see Chapter XIII.*
MID-ILLOVO NARROW GAUGE BRANCH, *see Chapter V.*
WEENEN NARROW GAUGE BRANCH, *see Chapter VIII.*



RICHMOND BRANCH

THE Richmond Branch, which was opened in December, 1897, is 17 miles in length, and deviates from the trunk line at a point just south of Thornville Junction.

NELS RUST is the initial station. The traffic is principally in dairy produce, a considerable quantity of the milk and cream consumed in the Province emanating from this district. Wattle growing is a coming industry, and the most extensive acreage employed in these pursuits is undoubtedly that owned by Senator Hon. Joseph Baynes, C.M.G., a gentleman noted for his scientific farming. One of his most successful and beneficial ventures is the well-known creamery business, which was commenced shortly after the opening of this branch. The farm is prettily situated, a little beyond the station, and a glimpse may be caught of its red stone gable, over the trees on the off-side of the train. This useful undertaking has considerably increased in importance during the last four or five years, so much so that the plant is scarcely equal to the heavy demand made upon it.

Altitude -	- 2710 feet.
Distance -	- 63¾ miles.

Beyond Nels Rust the irregularity of the country is more pronounced, but there is little to entertain the eye, except a farmstead here and there, a clump of trees, a few cattle, or a casual Kaffir kraal.



Nels Rust

1—Dairy *2—Railway Station*

ARNOLD'S HILL is the second point of call, and, when necessary, GREEN HILL and DURBAN ROAD the following ones. These wayside places serve the farms in their respective vicinities.

Altitude · · 3024 feet.
Distance · · 69 miles.

From the last-named siding the train has an uninterrupted run through more agreeable scenery to the terminus of the Branch, and, before a curve is made into the busy little station, we obtain a comprehensive view of the village.

RICHMOND, on the Illovo, has a population of about 500 all told, and like its more aristocratic and historic namesake on the Thames, is picturesquely situated. In its formation it is similar to the generality of South African towns, and is presided over by a tall peaked

Altitude · · 2817 feet
Distance · · 76¾ miles

hill called the "One o'clock," which rises rather abruptly at the north end of the village. From this eminence, or from its neighbour, "Byrne," espied a little to the left, a good view of the country is secured.

The main street leads through the centre of the village, and a walk along this tidy thoroughfare reminds one exceedingly of the Homeland. The neat, tile-roofed houses set amid a wealth of flowers: the bewitching arches of eglantine and rose; the weather-beaten church with the vicarage ensconced in the leafiest corner of the village; and the willow-bowered grist mill by the river, conjure sweet visions of a far-distant scene.

With public and other buildings the townlet is plentifully stocked. There are three churches, a commodious double-storied hotel, Government school, Post Office, Agricultural and Masonic halls, and miscellaneous stores. It is not lacking either in social or industrial institutions and the like, possessing Agricultural, Literary, and Glee Societies, Rifle and Farmers' Associations; cricket, tennis, and croquet clubs, as well as a good library. The water supply, which is a prominent feature, is secured by gravitation from a copious spring in one of the hills, and is conserved in covered reservoirs. It is "laid on" to every house, and is remarkable for its coolness, even on the hottest days.

The village is very healthy and eminently suited both as a recuperative and a pleasure place. The convenient train service also places it within easy reach as a week-end resort.

The district is fertile—maize, wattle, and fruit may be cultivated in abundance.

So far as its trade and farming facilities are concerned, Richmond is of



consequence. It is the centre of a large and flourishing pastoral district where black wattles and blue gums are successfully grown. A glance at the extent of the area represented will give a good idea of the large volume of trade, such as live stock, wool, wheat, bark, and other commodities. The construction of the narrow gauge line from Donnybrook to Esperanza has resulted in considerable traffic, particularly wool for export being diverted, to which extent the importance of the place has been somewhat prejudiced.



Anglican Church, Richmond

NATAL—CAPE LINE

MARITZBURG TO MALENGE

The Natal-Cape line was opened for general traffic throughout to Malenge in 1910, and was built with the object of providing an alternative line to the Cape, thus shortening the existing route by over 200 miles. The distance from Maritzburg to the Cape border is 103 miles, and to Malenge 116.

The line leaves Maritzburg at the south end, and for about two miles runs parallel with the main line to Durban, and then branches off in a south-westerly direction, the first halt is called–

DEPOT.—There is a mealie mill at this place, driven by water power from the Umsindusi River, and a large business is done. The next halt is—

Altitude	2105 feet.
Distance	74 miles.



Edendale Falls

SUTHERLANDS, so named after Dr. Sutherland, who resided in the district for many years and farmed on an extensive scale there. The place is mostly populated by Indians who grow vegetables, etc., for the Maritzburg market, the fertile flats and well-watered land being very productive. There is also a leather factory in the vicinity, with an up-to-date building in which a large tanning business is carried on.

Altitude - - 2216 feet.
Distance - - 76 miles.

EDENDALE is the first station out of Maritzburg. There is an extensive native population about this part, as well as Indians, whose occupation is chiefly gardening. There is also a Wesleyan Native Training Institution, where natives have been educated for many years past. The village is known as GEORGETOWN, and at the top part of it there is a Halt, $2\frac{3}{4}$ miles from Edendale station. The train to reach it takes a circuitous route, and rises from 2,436 feet above sea level to 2,623 feet. There are some pretty waterfalls, known as Edendale Falls, about two miles from the station, which are frequented by picnic parties, etc., from the city. A new industry has been commenced at Edendale by the Natal Wicker-work Company, Limited.

Altitude - - 2436 feet.
Distance - - 79 miles.

HENLEY is $16\frac{3}{4}$ miles from the city. The Pietermaritzburg Corporation Intake and Waterworks for supplying the city are near this place, and there is a lovely view of the country around; the best view to be obtained of the Zwaartkop mountain, and of the wooded hills and mountains all round, is from this position.

Altitude - - 3139 feet.
Distance - - 88 miles.

GEZUBUSO is the next halt, where there is a large brick and tile factory.

Altitude - - 3379 feet.
Distance - - 93 miles.

TAYLORS.—There are a few European farms about here, also a Government forest, which is being added to by the planting of gum and other trees. This is the centre of a large native location, which extends more or less right through to Donnybrook, viz.: about 80 miles.

Altitude - - 3689 feet.
Distance - - 97 miles.

HEMUHEMU (named after a departed native chief).—There is a considerable quantity of traffic from this Halt, composed of cattle, wool, and mealies, and is the depôt for the village of BURNTOWN.

Altitude - - 4123 feet.
Distance - - 104 miles.

ELANDS KOP is the highest point on this line, and has a salubrious climate. The post cart runs from this station to BOSTON and IMPENDHLE, which are six and 23 miles distant respectively. Boston is a favourite resort during the summer months; its lands are fertile and pastures rich, which makes it profitable for stock farmers, who have large herds of cattle and sheep, and palatial residences.

Altitude - - 4584 feet.
Distance - - 109 miles.



Upper Falls, Edendale Valley

There is a large forest a short distance from the station which contains valuable wood, from which point the train skirts the hill sides for miles, and gradually makes its way down into the valley until it reaches

DEEPDALE—a descent having been made from 4,584 feet to 2,798 feet above sea level—a distance of 22 miles, passing on its way the Hults, UMHLONGO NEK and NCWADI. Here and there are the homes of European farmers, who cultivate such crops as mealies, forage and potatoes, and have herds of cattle and sheep. There are also a large number of native kraals with cultivated patches of land, both on the hill sides and in

Altitude	2,798 feet.
Distance	131 miles.



Umsindusi River at Henley

the valleys. The scenery is very pretty indeed; small waterfalls, at some points, and bush growing in the valleys, wild flowers of all sorts in abundance and large patches of wooded land can be seen in the distance. This pleasant outlook breaks the monotony of railway travelling. Within a few miles of Deepdale there is a very pretty and extensive forest, from which large quantities of yellow-wood, sneeze-wood, stink-wood, white pear and wood suitable for wagon-making is obtained and sent to market. This is also the nearest point to Bulwer, but as the road leading from the valley is too steep, the post cart to that magisterial centre runs from Donnybrook.

The train skirts the valley from Deepdale, and gradually rises until it reaches

DONNYBROOK.—From here the post cart runs to and from Bulwer daily, and all along the route the country is rich and suitable for cattle and sheep farming. A special milk truck is attached to the train to collect milk and cream from the farms for the Nels Rust Dairy. Donnybrook is also the junction of the Stuartstown Narrow Gauge Line.

Altitude - - 4480 feet.
Distance - - 151 miles.



Umkomaas Valley

BULWER is an important farming centre in the district of Ipolela. The journey from Donnybrook occupies about three hours, and the fare is 10s. The ride up hill and down dale is intensely interesting, the road at one place cutting through a delightful piece of bush. The town, which reposes at the base of the great Mahwaqua, 6,834 feet high, has a salubrious climate and an altitude of 5,100 feet. It is a magistracy with the usual Government buildings, churches, schools, and library, and is also the centre of an extremely large and, for South Africa, thickly-populated district, in which substantial brick and stone residences have been built. There is a good hotel, a large agricultural hall, and several pretty residences, and the streets are kept in good order. The Ipolela district, of which Bulwer is the chief town, is receiving a considerable amount of attention, as there is no doubt that above and beyond the agricultural prospects it has a fine reputation as a health resort. The district, which is famous for fruit all the year round, stretches right up to the Drakensberg, some of the wildest scenery possible is obtained in the division, and Nature has been most bountiful with her waterfalls. The wealth of the district lies in the homesteads which enjoy such cultivated and rich soil, and it may be said that cattle and farm produce is a success everywhere.









Bulwer

1. *Bulwer Post Cart* 2. *Sheep Farming* 3. *Stock Farming* 4. *Orchard*



Waterfall at Bulwer

The new township of HIMEVILLE is about 30 miles west of Bulwer, near the Berg. A post-cart service has been established, running from Bulwer on Mondays, Wednesdays, and Fridays; fare, 10s. In relation to the farming and other qualities of the Ipolela district the subjoined observations may be given:

"This district is considered one of the finest stock-rearing and farming areas in the Province. The climate is superb, possessing as it does all the beauties of an English summer but with scarcely any of its drawbacks. The north-west boundary runs along the Berg and impinges on Basutoland. Although the Ipolela is distinctly a pastoral region, agriculture is by no means behind the times. Wheat, oats, potatoes, etc., are plentifully grown. Owing to the prevalence of frost, maize is not regarded as a reliable crop."

From Donnybrook a sudden descent is made to

CREIGHTON, or as

Altitude -	- 3288 feet.
Distance -	- 166 miles.

it is more commonly known, DRONK VLEI. There is a small village round about the station, and the land is divided up into 500

acre up to 1,000 acre blocks, part of which can be irrigated from the Inkonza River, which flows through. Mealies or maize is the principal product of this part. Cattle, sheep, pigs, etc., do exceedingly well.

RIVERSIDE.—The train runs along a flat for some distance, where there are high mountains on either side, until passing over the bridge at the Umzimkulu River, it enters deep cuttings and emerges again.

Altitude	3381 feet.
Distance	178 miles.

The Ingagane bridge is thus spanned, and the train reaches MALENGE station, about twelve miles beyond the border into the Cape Province.

THE STUARTSTOWN RAILWAY

This branch was built to serve Alexandra County and Ixopo Division.

Before departing from the standard gauge of South Africa, the Government had surveys made for the larger railway, but the cost was found to be prohibitive owing to the rough country, so that the narrow gauge was found to be the only alternative to no railway.

It was decided to give the narrow gauge system every trial, so a really high-class railway has been built, in all essential respects equal to the best standard gauge branches in Natal, but with the narrower gauge. This has been achieved at a capital cost of £308,427, or £3,178 per mile.

The length of the branch is 97 miles. It leaves Esperanza station on the Umzinto Branch, and strikes directly inland rising all the way (chiefly on the maximum grade of 1 in 33 compensated) to Donnybrook station on the Natal-Cape line.

The scenery is delightful and very varied, and all the wonderful variety of Natal, and its climate, etc., is encountered during its comparatively short ride, as the rise is from 170 feet above the sea to no less than 4,700 feet.

The only place of importance on the route is STUARTSTOWN (Ixopo), which is the seat of magistracy for the division, having a population of 300, accommodated by several stores, butcheries, hotels, and trades; possessing also various societies and athletic clubs. There are a number of buildings, including a church, school, and hospital. It is a prosperous village, serving as the market town for a large agricultural district which is well-watered, most of the upper reaches and sources of the Natal rivers being found here.

The products which the line has been built to transport are as varied as its height and climate, as they include everything grown in Natal, but chiefly wattle bark, maize, wool, and live-stock.

The country is so rough that development was not possible without a railway which for some years is unlikely to pay its way, but even in the short time since the latter was opened for traffic (June, 1908) a distinct improvement is noticeable.





Stuartstown Narrow Gauge (2-ft.) Railway

1.—Up Train leaving Esperanza Station 2.—24-ft. Cutting 3.—Loading Bales of Wool for export



Stuartstown Narrow Gauge (2-ft.) Railway

1.—Turnout from Natal-Cape Line (3 ft. 6 in. third rail) 2.—Transhipping from 3 ft. 6 in. gauge to Stuartstown Railway
3.—Widening Banks

GREYTOWN BRANCH

AND BEYOND

The junction station of the Greytown Branch is Pietermaritzburg. The line was completed in July, 1900, and is 64¾ miles in length. The passenger trains to and from Greytown connect daily with the important up and down main line trains. The country through which the line trails is just as eccentric in formation as other portions of the midlands. It is a farmers' land—stock, ostriches, maize, potatoes, onions, and English and tropical fruits thrive well in various parts of the extensive district; dairying is another large industry while the many forests of black wattle bespeak the adaptability of the soil for the growth of this useful wood.

VICTORIA ROAD is the opening station, opposite is the agricultural show-ground; to the left is the pretty Chase Valley, and stretching from end to end are the heavily-timbered slopes of Maritzburg's Berea. A fine view of the city, and its spacious outer-lands and parks, is secured between Victoria Station and the next stopping place, Mountain Rise.

Altitude - - 2070 feet.
Distance - - 73 miles.

BELFORT is a pleasantly-situated station. Beyond Belfort, and before gaining Ottos Bluff, a unique piece of railway is travelled over in order to surmount the awkward country, the line being of balloon shape. From Victoria to Claridge, the next stopping place, the line rises to a height of 860 feet in a distance of seven miles, the summit finally being reached by the balloon. The timid traveller who has not experienced the delights of aviation need have no qualms—he will not be required to leave his temporary seat nor his mother earth, the balloon being the local christening of the loop by which the line doubles on itself to gain its destination.

Altitude - - 2668 feet.
Distance - - 78 miles.

OTTOS BLUFF takes its name from the abrupt head-like hill opposite the station—a reduced replica of the famous Isandhlwana in Zululand.

Altitude - - 2402 feet.
Distance - - 85 miles.

ALBERT FALLS is the succeeding station, and is one of the best inland pleasure resorts in Natal. It is only possible to devote a little space to the attractions, but the visitor may be sure of passing an exceedingly agreeable time, both in summer and in winter, while as a week-end retreat it cannot be surpassed. Besides the beautiful broad falls, a few hundred yards from the station, there are long stretches of water for boating, good fishing, etc. The country is hilly and chiefly pastoral, and the noble Karkloof range—with its dense virginal forests—gives a striking and artistic finish to the landscape. As regards the climate, it is invigorating and everything that could be desired.

Altitude - - 2091 feet.
Distance - - 90 miles.

Pushing on to New Hanover the view is most picturesque. Wattle woods abound, for this profitable industry, with its three-fold return of bark, mine



Greytown Branch Line

1.—Wattle Plantation 2.—The Balloon, Higher Level 3.—The Balloon, Lower Level

props, and firewood, is quite a feature of the branch. The stopping places of CRAMOND, SCOTTS, and IMPOLWENI BRIDGE (for York), are afterwards passed.

NEW HANOVER. The village lies in a hollow, some little distance from the station. It is a prosperous farming district. Wagon-building and wattle-grinding are the chief industries.

Altitude - - 2595 feet.
Distance - - 101 miles.

SCHROEDERS, the following station, serves the settlement of NOODSBERG. In the post-cart days it was the half-way house to Greytown.

Altitude - - 2626 feet.
Distance - - 105 miles.

DALTON.—At the present time this is one of the most productive stations on the branch. Maize, wattle-bark, and timber form big traffics, and fruits (oranges, lemons, etc.) and vegetables are also grown in large quantities. The community around is, to a very great extent, composed of Germans of long standing in the Province. It is very patent that the railway has rapidly proved its desideratum in encouraging more extensive operations, not only in this neighbourhood, but generally in every branch of farming along the line. Dalton has a good hotel, and every accommodation will be found here. The Edwards Falls, some seven or eight miles off, are deserving of remark. They are slightly broken at the head, then plunge sheer some 150 feet. Horses and conveyances can be hired at the hotel.

Altitude - - 3396 feet.
Distance - - 111 miles.



Umgeni Falls, Albert



Railway Station, New Hanover

Dalton is the nearest station to the Noodsberg Mountains, which attain a height of between three and four thousand feet. RAVENSWORTH and HARDEN HEIGHTS are stopping places which occur before the next stopping place is reached. The surroundings and productions are similar to other portions of the branch.

SEVEN OAKS is the prettiest and most invigorating altitude on the branch.

Altitude - - 3652 feet.
Distance - - 122 miles.

On the left of the station is the magnificent Blinkwater Hill. Looking in the same direction, numbers of hartebeestes may often be espied. About four miles along the main wagon road will be found the Umvoti River, the divider of Pietermaritzburg and Umvoti Counties. This stream attracts picnic and fishing parties both from Seven Oaks and Greytown. The locality is so singularly verdant and peaceful that one can readily imagine he scans the rich rolling fields of Somerset or Devon. Intermediate between Seven Oaks and the terminal station of the branch is a German settlement, famed for its school, tannery, and plantation of fruit trees.

GREYTOWN is the capital of Umvoti County, and amongst the oldest towns

Altitude - - 3416 feet.
Distance - - 135½ miles.

in Natal. The population taken at the last census was:—1,117 Europeans; 271 Indians and Asiatics; 966 Natives; 82 Mixed or coloured. Since the foregoing, the numbers have increased considerably, but Greytown, like most country towns, has a floating population.

The following is a short sketch of the town:—It is laid out in Dutch fashion, set out on a slope, with streets running in square blocks. A long steep hill overlooks the town, and it is contemplated in the near future to plant on the summits of the various breaks, timber wood, as well as ornamental trees. The houses are built of brick and stone, and are of the most substantial class of building.

Water is laid on throughout the town with pipes, and the quantity and quality is excellent. It is taken from a waterfall some three miles from town,



Railway Station, Greytown

conveyed by pipes to a service reservoir constructed, and covered in, at the top end of the town, and then distributed throughout the town by smaller pipes.

Some fine specimen trees may be seen, especially in the gum and fir species, and the gardens which surround the houses throughout the town abound with various varieties of roses.

The town has a commonage of over 10,000 acres, which is a great boon to the inhabitants of the town for grazing purposes. In addition to this a farm of 3,000 acres has been purchased so as to secure the entire control of the water shed from which the water supply is derived.

There are three churches :—Dutch Reformed, St. James's Episcopalian, and Wesleyan. Three large and up-to-date hotels :—" Commercial," " Greytown," and " Plough."

The public buildings are all near the Market Square. The offices of the Local Board are the most striking, being distinguished by a tower and a " Diamond Jubilee" clock, and adjoining this is a large public hall. The Court House, Post and Telegraph offices, and the Gaol are all in the neighbourhood.

Schools are well represented :—a Government school, mixed ; Huguenot High School—which is a boarding establishment for the training of young ladies ; St. David's House—a boarding school for boys. These schools are all under the control of proper certificated teachers.

A public reading room and subscription library, with a choice selection of books is well patronised. The town also possesses a Masonic Temple and Oddfellows' Hall.

All kinds of clubs and associations have been formed : football, tennis, cricket, polo, hockey, golf, etc., athletic and otherwise.

The barracks of the Natal Police Force stand conspicuously on a hill outside the township.



Greytown

1.—Town Hall 2.—Huguenot Seminary 3.—Dutch Reformed Church

The wattle industry benefits Greytown to a very great extent, two large crushing mills being erected in the town. The Local Board have extensively gone in for wattle growing on the Town Lands, and it is estimated that there are 3,000 acres under cultivation this year.

Since the adoption of Local Government, Greytown has come wonderfully to the front, and being connected by rail, facility is afforded to the despatch of produce, etc., with but little inconvenience for outside markets.

Greytown has some historic associations. It was the birthplace of the late Commandant General Piet Joubert, and his successor, General Louis Botha, resided in the town for several years. Greytown, likewise, was the centre in connection with the Bambata and Native Rebellions. Dinuzulu's trial also took place in Greytown, which lasted over a period of five months ; the Town Hall being converted into a Court Room for the purpose.

Greytown is the centre of a wealthy agricultural district, and a very large quantity of maize is yearly exported. Sheep also do very well, and a great quantity of wool is exported.

The last valuation of the township stands at £195,830. Electric light is laid on throughout the town, and the streets are lit brightly at night. A market is held twice weekly, where ample supplies of farm produce and fruit can be had at reasonable rates. It is the central depôt of the Umvoti Mounted Rifles, a regiment which has done yeomen service.

BEYOND GREYTOWN

There are a number of settlements of interest and importance beyond Greytown, to which the locomotive has not yet penetrated. To the west is RIET VLEI; to the east are THE THORNS and KRANTZ KOP in the Tugela Valley; and to the north are UMSINGA and the battle-noted drifts of Zululand. These are severally described below:

RIET VLEI is distant about 20 miles, and lies between Greytown and Mooi River. The latter station is the one principally used, and a post-cart runs therefrom twice weekly. Some of the best-stocked farms in the Province are in this vicinity.

THE UMVOTI THORNS represent a thickly-wooded tract of country 15 miles out of Greytown. They cover an immense area and are used largely for cattle grazing.

KRANTZ KOP lies just beyond the latter, and is about 23 miles from Greytown. It is the seat of magistracy, and consequently is possessed of a Court House, Gaol, Police Barracks, and Post and Telegraph offices. A good hotel is also there. There is a tri-weekly post-cart service with Greytown.

Both The Thorns and Krantz Kop are excellent farming districts, and the agricultural implements that have lately been imported speak well of the progressiveness and increased activity of the farmers. The thorn-veld is well adapted for ostrich-rearing, and large numbers of these valuable birds are to be found in the neighbourhood. The big growth of onions in The Thorns is also a noteworthy feature.

In the matter of communication with the above places, horses and conveyances can be hired in Greytown. The journey to The Thorns occupies about two hours, and to Krantz Kop four hours. It is worthy of remembrance that around Krantz Kop, and in the Tugela, the grandeur of the mountain, woodland, and river scenery is almost unrivalled.

UMSINGA, 40 miles away, is best accessible *via* Greytown. It is situated at the junction of the Buffalo and Tugela Rivers, and can be reached from Dundee or Waschbank. Horses and other means of transport can be hired.

There may be those who would wish to explore the TUGELA VALLEY from Krantz Kop to Umsinga, and it will be an advantage to know that guides are obtainable at a reasonable fee on application to the magistrate at Greytown. As previously stated, horses can be hired in the town.

Artists, photographers, scientists, prospectors, sportsmen, students of native customs, and others, would derive much enjoyment from this expedition, and the following excerpt from the *Colony of Natal* may usefully be given :

"Passing up the river a succession of noble mountain ranges is viewed. Queer and fantastic shaped hills, some in the form of tents, others like ancient feudal castles, appear through the forest glades. The Tugela, broad and powerful, lashes in wild waves over its bed of boulders, some of which are round as cannon balls, and weigh many tons. Wild fig-trees flourish. A curious kind of wild thyme with a rich aroma covers the ground in places; tangled forests of thorn and cactus clothe the hills, whose *débris* is mixed with fragments of gold-bearing quartz and copper ore. At one point near the Episweni Mountain, a veritable castle of snow-white quartz occurs, and in the dark forests looks like a fairy palace of enchantment."



Wattle Bark Industry—Stripping

FUGITIVE'S DRIFT, RORKE'S DRIFT, ISANDHLWANA Mountain, and other historic points of interest in the Zulu War of 1879, which are usually gained from Dundee, or the railway station near the Buffalo River, can also be visited as a continuation of this tour, either by rejoining the main road and proceeding *via* Helpmakaar, or by keeping to the Buffalo River. But provision would require to be made beforehand for the longer leave from civilization which this would entail.



Foot-hills of the Drakensberg

Upper Tugela Branch

The Upper Tugela Branch, which joins the main line at Ennersdale, is 24 miles long, and runs over an enormous plain, with a gradual slope to westward, culminating in the rugged scenery of the Drakensberg. From a scenic point of view the situation is an ideal one, the highest summit in Natal is seen towering grandly to the sky. The district is eminently suitable for cattle and sheep farming, and there are generally good agricultural farms under the Berg. At MOORLEIGH HALT there is a German Mission Station.

WINTERTON, the terminus of the line, is an agricultural settlement, having the benefit of an irrigation scheme, somewhat on the same lines as Weenen, the terminus of the narrow gauge line. The scheme was commenced in 1902, and completed in 1905, when the land was thrown open for settlement. The water is supplied by a furrow, 18 miles in length, from the Little Tugela. There are some 5,000 acres under water, and the land is cut up into blocks of about 75 acres each. A village has been laid out in a central position, and everywhere in the locality the air is dry and bracing.

Altitude -	- 3354 feet.
Distance -	- 178 miles



Dairy Stock

Dundee and Vryheid Branch

Formerly this branch terminated at the coal fields, seven and a half miles from the junction. It has now been extended to Vryheid (60 miles from Glencoe). The line as far as Dundee does not boast of any scenic beauty and is fairly level.

The Borough of Dundee is situated very picturesquely on the Biggarsberg Range, at an elevation of 4,100 feet above sea level, and 237 miles by rail from Durban, and about 80 miles from the border at Charlestown.

The Town is very prettily located, being built on gentle sloping ground and surrounded with high hills, viz.: Indumeni about 6,000 feet high, Impati 5,260, and Talana 4,500. The latter hill being the scene of the first engagement during the late Boer War; this fact alone should make this part of Natal of considerable interest to visitors.

The affairs of the Borough are controlled by a Mayor and Corporation, who take care that the townspeople are supplied with the purest water, of which there is an abundant supply from the neighbouring hills. The magnificent reservoir supplying the water being situated on the "Impati," which is a short and pleasant walk from the Borough.

The Corporation have an efficient police force, and an excellent sanitary service.

The main streets in the centre of the Town are kerbed and channelled, but some of the other streets are only supplied with ordinary gravelled footpaths and guttering. Trees are also planted in several of the large streets, as well as in the two public parks, in one of which—viz., King Edward's Park—are situated the usual playing grounds, where cricket, football, hockey, tennis, etc., are indulged in. The sports' ground is also placed in King Edward's Park, and here the old-established Dundee Annual Sports are held.

The inhabitants of the Borough number about 3,000, of which about 1,500 are Europeans, and the remainder Natives and Indians.

There are three first-class hotels in the Borough, with the usual complement of conveniencies for travellers such as carriages, horses, etc.

The Town also contains some very handsome shops, whose windows display all the most up-to-date assortment of goods, and the streets are lit up with electric light.

Dundee is also fortunate in having two hospitals, one for Europeans and another for natives, and it is a regretable fact that chiefly owing to the approximity of the mines they are kept well employed.

Several denominational churches exist, whose buildings in most instances are handsome structures. The Anglican Church contains some handsome murial tablets, notably a large brass one, on which is recorded the names







Dundee

1.—Cross Street 2.—Market Square 3.—Talana (where Battle of Talana was fought)

of those brave men who died in this sub-district of Dundee during the Boer War. General Sir Penn-Symons and other officers are also buried in St. James' churchyard, and in the Borough Cemetery and that of Talana and the Swedish Mission, other military graves are to be seen.

The Borough is well supplied with schools, public and private, for both boys and girls.

Several coal mines are in full work close to the town, and being easy of access, either by rail or carriage, are often visited by tourists and other persons who are interested in such matters.

Altitude - - 4044 feet.
Distance - - 239 miles.

TALANA (Coalfields) is contiguous to, and lies a little below Dundee. Here the various mines are situated, and the *débris* piled hill high testifies to the activity of the workings. The Dundee district is perhaps the finest coal-producing area in South Africa, both in extent and quality. An enormous tract of coal country is still untouched; indeed, the deposits seem to be almost inexhaustible. The railway line after leaving Talana station passes over Smith's Nek towards the Buffalo River and Vryheid, and the traveller is borne between two famous hills, Big Talana and Little Talana.

Rorke's Drift and Isandhlwana, of Zulu War fame, the first of glorious memory, and the latter of mournful recollection, are respectively situated to the south and south-east of Buffalo River Station.



Isandhlwana near Rorke's Drift

The Vryheid (Natal) Railway Coal and Iron Company, having entered into an agreement with the late Natal Government to construct a railway to open up its properties beyond Vryheid, commenced the construction of the railway so far as Hlobane in March, 1908. The railway was officially opened by the Governor of Natal on 1st April, 1909.

The line, which is 17½ miles in length, is a continuation of the Glencoe-Vryheid Section, but is a considerable advance in grades, curves, and weight of rails.

The Extension is of considerable importance to this portion of the country, and is of no little value to the South African Railways. The Glencoe-Vryheid Section, which before the operation of this Company had always entailed a seriously heavy working loss, having since the addition of the Company's traffic completely overtaken working expenses, and contributing for the first time in its history to interest on capital.

The line is worked as a part of the South African Railways System, and will soon form an important link in railway development in the direction of the Transvaal and Swazi borders, whilst it has quite recently been arranged for an extension of another six or seven miles to be immediately undertaken in the direction of Louwsberg.

The traffic derived from the mine has already exceeded 10,000 tons of coal per month, and is increasing month by month in dimensions.

If in addition to minerals for which the line was originally built there should, as is hoped in some quarters, develop a valuable Pongola Goldfield, which the remarkable success of one mine in that locality seems to render not improbable, this section of the country will become increasingly important to the Province.

The Utrecht Railway

The Utrecht Railway was opened on the 25th April, 1910. It joins the main line about three miles south of Newcastle. There is no station at that point, as all passenger trains run to Newcastle, which is practically the junction.

The line has been built by the Utrecht Collieries Company, primarily as a coal line, at a cost of £100,000. The length of the line from the junction to Utrecht station is 24½ miles, and to the terminus at the mine 26 miles.

The line runs through flat country, consequently the grades and curves are easy. The sharpest curves have a radius of 740 feet, but there are only four of these—955 feet being the average limit. The result is that at a speed of 25 miles an hour the effects of curvature is not felt by passengers. Grades, however, are of more importance than curves on a mineral line, and these have been kept as low as possible. The steepest grade against trains going towards Utrecht is 1 in 50, and against trains going towards Newcastle 1 in 100. The heavy traffic will, of course, be from the mine towards the main line.

Not only is 1 in 100 the steepest grade against loaded trains but the grade is reduced to 1 in 110 on long pulls, which is thus virtually the ruling grade. The country being flat the earthworks during construction were not formidable, but owing to the easy grades adopted the work was not as light as might have been expected. The bridges are the main feature of interest, the Ingagane and Buffalo bridges being fine structures. The Ingagane bridge has four spans of 60 feet clear, and the Buffalo bridge five spans. Both bridges are about 50 feet high, from rock foundation to rail level. The masonry and steelwork are both massive, and the workmanship exceptionally good.

There is a fully-equipped station at Utrecht, about a mile and a half from the business centre of the town. The township is situated in a fertile valley in a bend of the Belelasberg, and has been laid out on a generous scale, being over two miles in length. The result is inconvenient for pedestrians but ideal for erf holders, who enjoy a *rus in urbe* existence; growing their own fruit, forage, mealies, etc., and sitting under the shadow of their oak trees and willows in the very centre of the township. With renewed commercial activity, and an increasing trade in wool, the opening of the railway and the coal mine, and the advance of agriculture, it is expected that this old-established and picturesque township will enter on a new development.

The mountains behind Utrecht are said to be coal-bearing throughout, the seam being a particularly valuable one. The property of the Utrecht Collieries is the only one which is being developed, remoteness from any railway being the barrier to the opening up of this enormous coal field. The line having been completed, it is expected that a very large quantity of coal will be sent annually to the chief markets of South Africa.

The seams of coal run through the Belelasberg at a considerable height above the railway and, therefore, not only are shafts not required, but the coal will gravitate from the mine to the screens, thus making hoisting engines quite unnecessary.

At Utrecht the seams are thicker than elsewhere in Natal, and, in addition, no shale bands are included in the seams.

With regard to output, the plant at present being erected will deal with 1,500 tons a day, and provision has been made for additions to be made which will enable the Company to deal with double the quantity.

All the mine machinery will be worked electrically, power being supplied from a central station. In addition it is proposed to light the town from this station, high tension cables being carried to a central point where the current will be transformed down for house and street lighting.

The cleaning plant for the coal includes the most modern machinery that can be obtained. The large sizes will be cleaned on picking belts, and all small coal treated in a washery. By this means a very clean product should be put on the market.

At present all mine buildings, including the compound, quarters, houses, and offices, are being erected with all possible speed.

The Northern Territories of Natal

Vryheid, Utrecht, and part of Wakkerstroom district were added to Natal on the 27th January, 1903, by proclamation. Wakkerstroom district originally formed one the boundaries of the Transvaal, Utrecht being then part of Zululand. As that part of Zululand which now is known as Utrecht afforded good winter grazing, the Boers during the cold season used to bring down their flocks from the high veldt, having obtained permission for grazing their cattle from the native chiefs, with the concurrence of king Mpande and later of Cetshwayo. This complaisance on the part of the Zulu kings eventually led to complications as the Boers, finding the country good, encroached upon the land which thus became disputed territory. The relations between the Boers and the Zulus became so strained that their disputes led to bloodshed, and the complications which arose formed one of the chief reasons for the British occupation of the Transvaal in 1877.

As soon as the British were in occupation of the Transvaal the position, politically, of Utrecht district was found to be so acute that more than one commission was appointed to enquire into the state of affairs; but this action had no effect as a means of settling matters, and more stringent measures resulted, which culminated in the Zulu War of 1879.

After the close of the war, Lord Wolseley, as High Commissioner, subdivided Zululand into thirteen districts, each under a chief or kinglet, but this arrangement did not answer, and in 1883 Cetshwayo was allowed to return to Zululand with limited powers and area of jurisdiction. The death of the latter in 1884, and the accession of Dinuzulu were followed by the intertribal strife between Dinuzulu and Usibepu, who was the only one of the thirteen kinglets who was allowed to retain his chieftainship. This trouble again brought the Boers on the scene, several of them approaching Dinuzulu and offering to assist him against Usibepu, provided they were paid in land. Dinuzulu, however, and all his people in Northern Zululand, now Vryheid, contended that this assistance was to be purchased by the payment of a number of cattle, and that no land was ever promised. However, a document had been signed, whether or not the Zulus understood its purport; it proved to be a deed granting certain areas of land for the service agreed upon. Usibepu having been defeated, the Boers at once proceeded to appropriate their land, including part of Zululand now known as Proviso B. The cession of this latter portion was ultimately refused by the British Government, who, however, allowed all the land known as Vryheid district to be given to the Boers. The state so formed was named the "New Republic," the late General Lucas Meyer being chosen President. It became incorporated with the South African Republic in 1888. The men composing the commando which assisted Dinuzulu were nearly all adventurers —men who had no capital. When the land was apportioned into farms and allotted to new comers, most of them had to mortgage the land to Government to enable them to obtain stock. At the time of the outbreak of the Boer War in 1899 most of these men were doing well, for this land is exceedingly fertile;



but the mortgages not having been paid off, and most of their homes being destroyed during the war, the generality of the settlers were ruined and left destitute. For this reason many of the farmers in the Vryheid district are heavily indebted to Government in respect of mortgages on their land.

The people of Utrecht, including the Natal portion of Wakkerstroom, are financially in a much better position than those of Vryheid district. The portion of Wakkerstroom now forming portion of Natal is almost exclusively pastoral land, and is very cold. Sheep, goats, and cattle, and especially horses thrive well there. Utrecht district besides being a fine stock country is also capable of producing grain. A splendid bed of coal, included for the greater part in the town lands of Utrecht, has been discovered, and a branch line of railway, which has been constructed to tap this wealth, will greatly assist in developing the district generally. Besides coal, there are indications of other minerals of which, however, nothing has so far been discovered of a payable nature. On the north, the district is partly bounded by the Pongolo River, on the banks of which extends for many miles a great timber forest which should be of great value to the Province. Towards the eastern extremity of the district is situated the village known as Paulpietersburg, called after President Kruger and General Joubert, and giving its name to the magisterial division formed since annexation to Natal. The possibilities and capabilities of Utrecht district extend also to this division, and the farmers are slowly recovering from the effects of the War. North of Paulpietersburg, at a distance of about eighteen miles, is the German village of Luneberg, on the Transvaal side of the Pongolo River. Here one finds the district rapidly progressing under its energetic settlers, who, nothwithstanding heavy losses of stock and the destruction of homesteads during the war, are steadily recovering their prosperity, and are proving themselves ideal colonists. The country forming the Utrecht and Paulpietersburg divisions is well-watered; much of it is of a broken and rugged nature.

Vryheid district covers an area of some 600 square miles, and includes the Vryheid, Ngotshe, and Babanango magisterial divisions. The general trend of the country is flat, but here and there occur bold bluff headlands, the most distinctive of which are the Schurreberg to the North-West, Hlobane to the East, and Nyati Berg and the Ntabankulu to the South-East, and the Babanango range to the South. The district has no natural forest, except a part of the Ngome on the Zululand border. The soil is well-adapted to agriculture, and, if in the dryer parts artesian wells are sunk for irrigating, crops should be abundant. Cattle and common goats do exceedingly well, but the country is too low-lying for Angora goats; native sheep thrive, and the district is especially good for wintering sheep. Oranges, naartjes, and other citrus fruits grow splendidly, and tobacco and cotton can be raised successfully under proper cultivation.

Many parts of Vryheid district, such as the valleys of Pongolo, Black

Umfolozi and White Umfolozi Rivers, and portion of the Babanango division are, owing to the prevalence of fever, suitable only for leasing to natives as labour tenants.

There are indications in this district of large belts of auriferous ground, as well as of copper and other valuable minerals. Several ventures have been started, but are languishing rather for want of capital and energy than from the poorness of the ore. At the Ngotshe, however, there are promising indications of gold-bearing ground; development is being carried on, and in at least one case the gold output is paying. The coal measures situated at Hlobane and under the Nyati Berg range are, up to the present the most valuable discoveries; the coal areas of the district are practically unlimited, and the character of the coal compares well with other coal in Natal. At Hlobane large works have been started and good coal is being put out, much of which is sent to Durban for export. A railway line about seventeen miles in extent has been constructed to Hlobane, and will probably be soon extended another half-a-dozen miles to tap coal measures further on under the same mountain. There are indications also of iron measures which may one day prove of great value to the country.

The town of Vryheid is pleasantly-situated on a slope facing south, and is well laid out. The want of water is at present the chief drawback, but this will shortly be remedied. The Government has lately purchased several farms, which have been surveyed out in blocks, and these are being freely taken up under a closer settlement scheme which, it is hoped, will prove successful and encourage the extension of similar schemes to other parts of the Province. Inducement would thus be offered to Europeans to settle more numerously in the country.



"The lowing herd winds slowly o'er the lea"



"The Krantz"



THE DRAKENSBERG

"THE ROOF OF AFRICA"

CHAPTER XV

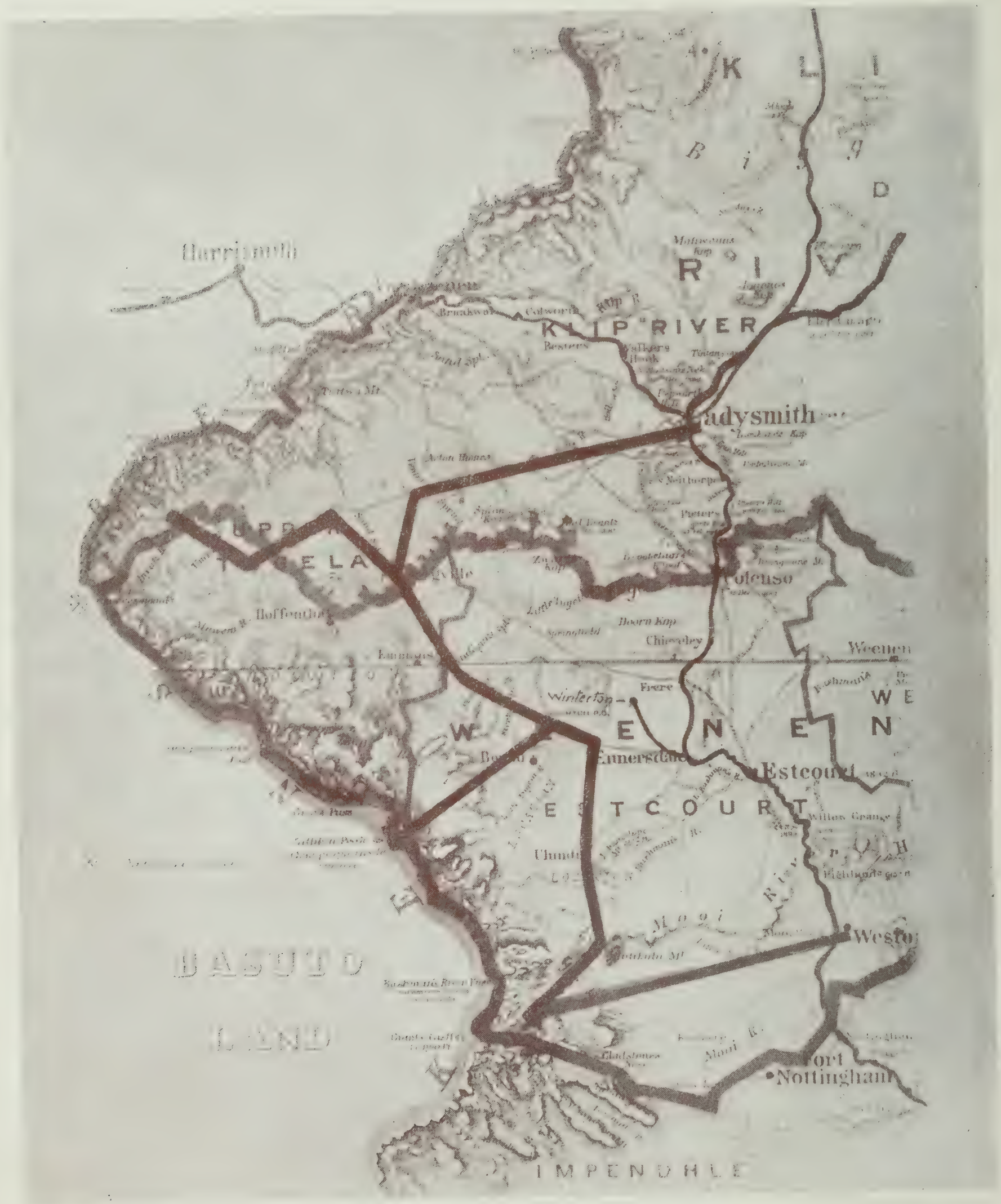
"Climb the mountains and get their good tidings. Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness on you. and the storms their energy, while cares will drop off like Autumn leaves."

—*John Muir.*



EUROPE has its Switzerland, famed throughout the world for the splendour of its mountain scenery. For variety and charm, as well as accessibility, it has well-grounded claims to the title of a "prince of play-grounds." But though the scenery is unchangingly beautiful and the familiar Alpine monarchs retain a ceaseless fascination for the mountaineer, yet at this date the charm of novelty and newness for many Alpine tourists has worn off. In like manner, America and Canada, while still comparatively new countries have matured so rapidly that climbers among the Rocky Mountains have long since made what the mountaineer's soul craves for—the chief joy of the climber's ambition, a "first ascent"—an event of past history. It is here that the Drakensberg range, particularly that portion known as the Mount aux Sources group, makes its challenge to all lovers of nature in her grandest and most sublime moods. Tourists and mountaineers can no longer be satisfied with repeated ascents of the well-trodden peaks of the Continent or Canada now that the beauties of the Drakensberg are making so emphatic a claim to attention. Here the geologist, the botanist, and the naturalist, can find in every direction opportunities for original research work of the most valuable character; and the mountaineer and sportsman can revel in regions untrodden from the beginning of time. The health and pleasure seeker can hardly fail here to obtain new energy and new inspiration, while the artist may find in the Drakensberg a new world to conquer and make his own.

The most important climatic consideration in judging of a health resort is its *altitude*, though occasionally other factors demand attention.



Map of Roads to the Drakensberg

The *Purity of the Atmosphere* stands in direct ratio to the height above the level of the sea. Apart from accidental interruptions, caused by the presence, it may be, of manufactories, or similar sources of atmospheric impurity, the number of bacteria steadily diminishes in higher atmosphere, until at a given point they entirely disappear.

On health grounds alone the Drakensberg makes its appeal, apart altogether from the challenge it makes to the imagination and intellect.

A Trek from Ladysmith to the Mont aux Sources

MODE OF TRAVEL.—The trek to the Berg may be accomplished in several ways: by ox wagon, mule wagon, post cart (where available), or in the saddle. For a large party, with a corresponding particular object, a wagon with a span of sixteen good oxen and a careful driver may be found the most convenient and most comfortable. The ground may be covered a little quicker with mules, but both the wagon and load would have to be considerably lighter than would be necessary with oxen. A compromise may, however, be effected by using the post cart over such parts of the journey where this service is in operation, sending on in advance by ox-wagon or ox-cart personal luggage and camp impedimenta. But perhaps the easiest and safest way of travelling over the veldt in a mountainous country, for those that are accustomed to riding, is on horseback, accompanied by a pack-horse. By this means one can get away from the beaten track and penetrate parts of the country where it would be impossible to take a vehicle.

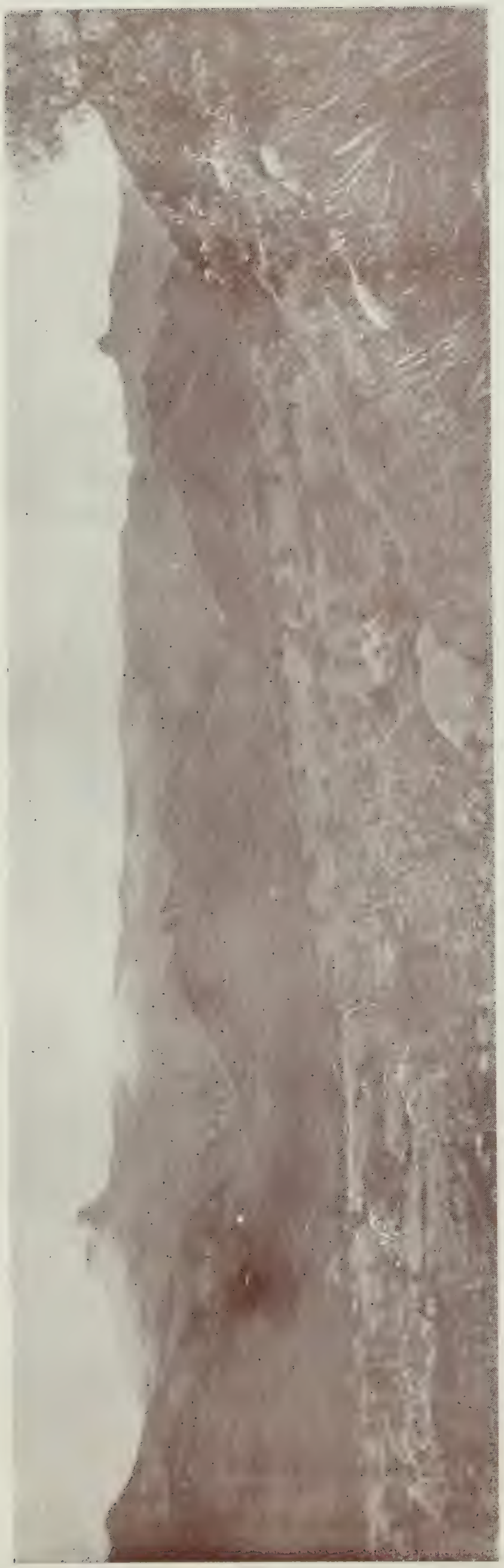
AMPLE NOTICE TO BE GIVEN.—Whichever mode of transport is decided on application should be made a few days beforehand to the proprietors of either the "Crown," "Royal," or "Station" hotels, or to the Station Master, Ladysmith, who will furnish all necessary information.

BEST TIME OF YEAR TO VISIT THE BERG.—In Natal an average of about five inches of rain falls every summer month, and one inch every winter month. The summer (September to April) is called the "wet" season, and the winter (May, June, July, and August) the "dry" season. With the heavy rain-storms that prevail during the summer-time the roads and wagon tracks—broken by numerous dongas and spruits—become, at times, almost impassable for vehicular traffic, while the rivers in the immediate vicinity of the mountains become so swollen as to make excursions inconvenient, if not actually unsafe. The winter, therefore—from April to September—is the best time of the year for visiting the Drakensberg.

EXTREMES OF TEMPERATURE.—It will be well, however, for the intending tourist to bear in mind that this season, particularly in the mountainous districts, is extremely cold between sunset and sunrise; a cold that is to be all the more guarded against owing to the contrast from the sun's heat of the day. It is, therefore, necessary that a general supply of warm clothing and rugs should form part of the equipment for such a trip.

GENERAL REQUIREMENTS.—LEAVING LADYSMITH.—Assuming that the wagon and oxen have been secured, with horses, saddles, and bridles, together with the other impedimenta associated with the commissariat and camp equipment, needed on the road and at the end of the journey, and boys, a gun or two, and a guide well versed in the Kaffir language, the party may bid farewell to civilisation for a brief period.

OBJECTIVES.—The course is a westerly one; the destination—that magnificent mountain range which rises in parts ten or twelve thousand feet above sea level, extending several hundred miles in length, its peaks reaching far up in the clouds and looking down as if guarding the beautiful and peaceful Natal at its feet; the object—to witness at first hand that wonderful scenery (especially on the western side, taking in the "Giant" and "Champagne" castles and the lofty peaks to the north), with which few landscapes on earth can compare; to obtain personal impressions of the districts in which the wild Bushmen lived in all their pristine glory; their home—the caves and kloofs in the gorges of the mountains—far away from any other tribe; or maybe to scale the mountain peaks with all the ardour and enthusiasm of an experienced Alpine climber.



General View of Mont aux Sources (10 miles distant

BEST HOURS FOR TREKKING.—Transport riders usually find that the best hours for trekking are in the early morning and about four o'clock in the afternoon, outspanning during the heat of the day, but following on the lines of experience, the tourist will find it best to inspan immediately after the early morning coffee, starting not later than 7 a.m.

INTERESTING POINTS *EN ROUTE*.—Having become accustomed to the roll of the wagon, and the peculiar shouts of the driver to his oxen, the traveller will have time to observe the interesting and historic hills so closely associated with the late war as gradually they recede from view. Umbulwana, Lombard's Kop, Gun Hill, Pepworth's Hill, Surprise Hill, and Nicholson's Nek, may each and all be detected, and—indeed, the hills round Ladysmith can be seen for more than 20 miles distant—kept in view for a long time after the Klip River is crossed. The railway may be seen branching off to the right to Van Reenen and the Drakensberg over the Harrismith, Bethlehem, and Kroonstad line.

THE FIRST OUT-SPAN AND NIGHT CAMP.—Three hours' trek and Flagstone Spruit, about nine miles from Ladysmith, is crossed. This is a suitable place for the first outspan. After a rest of four or five hours the journey is again resumed. The road being good, fair progress is made and without hindrance Dewdrop, the first camping-out spot for the night is reached, having trekked nearly 20 miles on the first day.

THE SECOND MORNING: SPION KOP IS PASSED.—With an early start the next morning Acton Homes may be easily reached the same evening; the chief item of interest along the route is Spion Kop, so closely associated with the Boer War, and of circumstances and incidents connected with the relief of Ladysmith. The military operations were, however, made from the opposite, or western slopes of the hill towards Trichardt's Drift, and from the hills above Coventry's Farm towards that of the main road to Acton Homes. A good graded road has now been made to the top of this famous hill. At Acton Homes there is a telegraph and post office and a good general store.

THE THIRD MORNING: BERGVILLE.—With another early morning trek



Mont aux Sources

North East Tower altitude 7,000 feet



Mont aux Sources

South-West Tower (Tugela River in foreground), altitude 11,000 feet

over a splendid wide and level road. Lower Tugela or Bergville as it is now called, may be reached by breakfast time.

POST CART SERVICE—BERGVILLE ACCOMMODATION—A DAY'S SADDLE RIDE IN THE MOUNTAINS.—There is a tri-weekly post cart service between Ladysmith and Bergville, leaving Ladysmith on Mondays, Wednesdays, and Fridays and Bergville on Tuesdays, Thursdays, and Saturdays. The fares are:

		SINGLE			RETURN		
		£	s.	d.	£	s.	d.
Ladysmith to Dewdrop	...	7	5		5	15	0
" Acton Homes	...	12	5		1	2	6
" Bergville	...	17	5		1	12	6

(25 lb. of luggage free; excess 1d. per lb.)

Agents—Ladysmith: A. Fraser; Bergville: F. H. Orwin. There is an excellent hotel in Bergville, where ample accommodation may be obtained, and the terms are 10s. a day. The post and telegraph office is also located in the building. A camp of the Natal Mounted Police is situated here. Bergville, at an altitude of 5,000 feet above sea level, has a dry bracing climate, is surrounded with fine scenery, and is within a day's saddle ride of the mountains.

AGAIN INSPANNED.—After a night's rest, either under canvas, or in the hotel, the tourist will be ready to continue the journey into the Berg; every hour making the changing scene more imposing and beautiful.

The view is wonderfully expansive; at one point the eye can take in at a sweep the range of mountains extending from Tintwa Hill to Mont aux Sources, and as far as "Champagne Castle," a distance of about 50 miles.

THE ROAD FROM BERGVILLE TO OLIVER'S HOEK.—Although the road from Bergville to Oliver's Hoek is not as good as that between Ladysmith and Bergville, the spruits and dongas being much more frequent, there is a fair wagon track, and with good oxen and a careful driver no inconvenience need be experienced.

Within a mile of Oliver's Hoek the usually wide drift of the Tugela is crossed and makes a charming picture.

AT OLIVER'S HOEK.—Stores may be replenished, letters posted at the store, or directions obtained at the Police Camp for the future route.

NEARING THE BERG.—It is from this point onward that some accurate conception of the true proportions of the Drakensberg range may be realised. As each mile is covered between Oliver's Hoek and Coventry's Farm—known also as Koodoo Farm—at the entrance to Koodoo Pass, the traveller finds the Berg closing in around him, until at the foot of Mont aux Sources he is practically hemmed in by the spurs which run out from the mountains.

THE FIRST SPURS.—Four to five hours' trek over a somewhat rough road brings the traveller to the first of the mountains or spurs of the Drakensberg. These, together with several high isolated hills, mostly flat-topped, are the remains of the extensive plateau from which the Berg itself rises so precipitously. All these spurs are, therefore, alike in their main features. As the Berg is approached one notices a strange sameness in the formation of the upper part or capping of these spur ridges. They all rise in terraces, and, seen end-on, look like a succession of camel backs.

AT THE FOOT OF MONT AUX SOURCES.—Having reached the foot of Mont aux Sources, it is necessary, owing to the hilly nature of the country further in, or more appropriately up, the Berg, to leave the wagon, negotiating the rest of the journey either on horseback or on foot, all camp impedimenta and personal luggage being sent to the ultimate camping ground by ox-sledge.

INTO THE HEART OF THE MOUNTAINS.—After a refreshing night's rest, the first thing to be done is to engage guides, then having hired a sledge and oxen a start may be made up the steep hill sides that will, after three hours steady collar work for the patient toiling cattle, bring the travellers and their belongings into the very heart of one of Nature's finest pictures.

WHERE TO CAMP.—A camping ground may be selected either at a place called "Dooly Farm," or, for preference, further up the river bed, at Devil's Hoek. Care, however, should be taken to choose an elevated position, which will be found to be much warmer and more agreeable than if the tents are pitched in the valley, where the frost and dew are very heavy.

A WEEK AMONGST THE SUPERB MOUNTAINS.—Making the camp the head-quarters, daily excursions can be promoted, and a week most profitably spent at Mont aux Sources.

There is a magnificent climate, and the mountaineer, botanist, naturalist, photographer, and the sportsman, may alike revel in delightful scenic entertainment, each indulging his individual fancy to its utmost. Without doubt the scenery in this vicinity is equal, if not superior, in variety, in delicacy, in compactness, and in grandeur to that found in any other part of the Berg.



On the road to the Berg

THE PECULIAR CONFIGURATION OF THE DRAKENSBERG.—Before describing the chief features of the Mont aux Sources, it may not be out of place to indicate an interesting peculiarity in the character of that portion of the mountain range between Tintwa Pass in the north and Bushman's Nek in the south, which acts as the inland rampart of Natal.

It deserves particular mention on account of the influence it exerts on the physical conformation of the land. In this section of the Berg the course of the mountainous ledge is broken into a zig-zag line, as shown on the map on page 322, in which it will be noticed there is a retiring angle, or a bay, set back from the sea towards the north-west; and a prominent angle, or projection, directed south-eastwards towards the sea. As already indicated, the parts of the range which are concerned in the formation of these angles, are about the boldest and loftiest of the broken chain. The projecting point looks down into the Province of Natal in the form of a rocky rampart rising 11,000 feet above the sea, and has acquired for itself, on account, doubtless, of its castellated lines and the grandeur of its dimensions, the characteristic name of "Giant's Castle."

A little further to the north another jagged peak, which has been designated "Champagne Castle," rises nearly 1,000 feet higher.



1—Under Canvas *2 Ox Sledge*

Near the deepest recess of the retiring angle the mountains, almost as high, have there been distinguished by the French missionaries (originally of the Cape Colony) as the "Mont aux Sources," because they constitute at that spot the culminating focus of the land elevation of this part of the African Continent, and really form the watershed of three great river systems—the Tugela and its affluents, which flow down into Natal; the Orange River and Caledon, which pass through Basutoland to the south-west; and the Wilge River an upper affluent of the Vaal River, which waters the Transvaal territory towards the north. From this culminating point the main range of the Drakensberg gradually declines until it is lost in the hilly ridges of the Transvaal, about a hundred miles beyond the northernmost point of Natal.

FEATURES OF MONT AUX SOURCES.—The features are everywhere the same, and the immediate neighbourhood of the Tugela Falls may be described as showing the typical scenery and geological structure. This district is more accessible by wagon than any of the other localities, and the scenery is, on the whole, more beautiful. Words fail to furnish adequate expression of the pictures that may be seen from any point of the bed of the Tugela as the gorge is approached, or as the visitor skirts the hills which run out in grand and lofty spurs, broken here and there by perpendicular cliffs, many hundred feet deep, clothed with sub-tropical plants and shrubs, with beautiful creepers climbing among the projecting rocks, or hanging in festoons, whose crimson and yellow pods make delicious contrast with the rich green decoration around. Tree ferns raise their stately crowns above the undergrowth.

MAGNIFICENT SCENERY—THE SOURCE OF THE TUGELA.—At the foot of the Tugela Falls the scenery is regarded by some authorities to resemble, in some respects, the Dolomites, not far from Innichen in the Pusterthal, below the Drei Schusberspitze. The peaks, buttresses, pinnacles, cliffs, ruined towers, and spires, and the rich colouring of the rocks are grand beyond description. An illustration has been included showing a general view of the face of Mont aux Sources running from the south-east (left-hand) to the north-west



Mont aux Sources.—Source of the Tugela

tower (right-hand). This face of the Mont aux Sources is concave, and the Tugela Falls are to be seen almost in the centre of the cliff-face. The many projections and ridges show up best before sunset or sunrise, but are lost in the full glare of the daylight. The river cañon, which must be traversed to reach the foot of the falls is interesting and also beautiful and probably one of the unique sights of South African scenery. There are places here cold and damp upon which the sun never shines, while 2,000 feet above the magnetic peaks hold in suspension films of sunlit cloud.

THE GREAT CAÑON, THE FALLS AND GORGE.—It is questionable if there is anything in Europe resembling the five miles of cañon below the Tugela Falls. In places it is not more than 10 feet wide, and the only route is the river bed itself, up which four hours' rough walking is required to reach the foot of the lowest fall. The rise is 1,200 feet in four miles from the mouth of the gorge to the foot of the lowest falls. One authority gives the height of the main Tugela Fall, with its three steps, to be 2,050 feet.

The tunnel or narrow gorge about 150 feet in length—through which the river flows like water out of a pipe, and which divides the lower part of the cañon into two—is not quite dark inside, as the river reflects the light well into it. Of course one has to go through the water, which is four or five feet deep. All the mountain streams are crystal clear, even a a freshet after a storm does not make them the least muddy. Some of the pot-holes are large and deep. In winter the frozen waterfalls, 30 or 40 feet high, show a charming play of rainbow colours in the sunlight. In sheltered spots on the top, snow lies most of the winter, and frequently falls during midsummer, but in spring the flowers are beautiful and grow in great profusion.

A NEW FIELD FOR MOUNTAINEERS AND OTHERS.—The foregoing is only a very brief description of the many beauties associated with Mont aux Sources district. To the hardy mountain climber from Europe it offers new fields to conquer, presenting many difficulties, if not dangers, to overcome. Mountaineering is a sport which can be enjoyed with equal keenness by men of widely different physical and intellectual capacities, and can be approached and pursued in many ways. Mountains have their characters like men, and, doubtless, appeal to their human friends who are of like calibre. Some of us climb for exercise, some for scenery, and others for scientific enlightenment. To each and all, the rugged ridges and lofty pinnacles of this section of the Drakensbergen offer inducements, and not only to the mountaineer, but to the artist and photographer, the geologist and naturalist, there will be ample repayment for a visit to Mont aux Sources, the grand panorama of Natal.

A Trek from Mont aux Sources to "Champagne Castle" and "Giant's Castle" *via* Bergville, Gourton and Ulundi (Tabamhlope)

It is with reluctance that the tourist bids farewell to Mont aux Sources and retraces his steps by easy treks through Oliver's Hoek to Bergville, *en route* to "Champagne" and "Giant's Castles".

BERGVILLE TO GOURTON.—Leaving the Ladysmith road to the left at Bergville, after crossing the Tugela Drift, the road from Bergville to Gourton, which is a remarkably good one, skirts the Berg the whole distance, and is intersected by many rivers and mountain streams. Sterk Spruit is crossed four or five miles before Gourton is reached; where there is an hotel, two stores, and daily postal communication. The distance is about 30 miles and may easily be accomplished in a day and a half.

SUN PICTURES.—The scenery along the Berg between Mont aux Sources and "Champagne Castle" is remarkably fine. There is one particular group of high peaks, known locally as the "Rockeries," which is one of the most beautiful and effective pictures along the range. The sky and cloud effects here—particularly in the early morning, with the rising sun mantling the distant mountain tops in a blaze of gold and crimson light, with an atmosphere pure and clear casting a brilliant reflection on all around—is a glorious sight to behold. This part of the world is famed for the lovely and varied tints which the sun produces in the sky in rising and setting, more especially in the summer, and which forms celestial landscapes marvellous to the eye.



"The Spires," Mont aux Sources
(Altitude 11,000 feet)

COURTON TO "CHAMPAGNE CASTLE."—At Courton the road strikes to the right making straight for "Champagne Castle" or Cathkin Peak as it is more generally known. Fifteen miles beyond the blue foot-hills above a belt of white cloud rises the summit of Cathkin, the cloud piercer the highest point in the Berg.

"CHAMPAGNE CASTLE."—This section of the Berg is, perhaps, not so striking as the Mont aux Sources group the outlines are more unbroken, although the vastness is more impressive and the mountains higher. The road leads away to the foot of the Little Drakensberg, a range of mountains which runs parallel to the main range of the Berg proper, and is separated from it by a gorge 7,000 feet deep. The view from the summit of the Little Berg is exceedingly wild and rugged, the home of hundreds of enormous baboons. There are several places from which good views may be obtained of the Peak, which is several thousand feet above the valley immediately below, the closer one is to it the more difficult the country becomes, like a picture—coarse and rough when viewed too closely, but instinct with depth of colour when viewed from a distance. There is a very peculiar-shaped hill to be seen, with a cavity large enough for an ox-wagon to pass through, otherwise the gorge presents very much the same features and characteristics of the Tugela gorge, and there are also wooded glens with mountain torrents. It would be wearisome to suggest half of the conceivable ascents and descents to be made from such a centre. We must proceed to complete the last stage of the journey to "Giant's Castle" by way of Tabamhlope.

BRIDLE PATH BETWEEN THE "CASTLES."—The journey from "Champagne Castle" to "Giant's Castle," may be accomplished on horseback, along a fairly good bridle path by the side of the mountains. With a large party, however, with all the necessary camp equipment, it is better to keep with the wagon as far as the roads will permit it to travel.



The Southern Gorge, Mont aux Sources



The Tugela Gorge



Down the Koodoo Pass

Mont aux Sources





Mont aux Sources

Exit of Tugela River through Tunnel

Entrance of Tugela River through Tunnel



The Main Gorge. Mont aux Sources

NEAREST RAILWAY STATION TO "CHAMPAGNE CASTLE."—To those contemplating a visit to "Champagne Castle" independently of other sections of the Berg, will find the Ennersdale-Winterton Branch Railway line to Los Kop will take them to within one day's ox-wagon journey of "Champagne Castle." Intending tourists are recommended to put themselves in communication with the proprietor of the Ennersdale Hotel or the Station Master there, who will supply all information.

FROM GOURTON TO ULUNDI (TABAMHLOPE).—The journey from Gourton to Ulundi or Tabamhlope, as it is now called—past the Police Camp at Los Kop, to which point the Ennersdale and Winterton Railway line has now penetrated, has to be made over an unusually steep road. There is a heavy pull immediately after passing over the Little Tugela bridge at Gourton up to Los Kop. For a brief space the track, which crosses the railway line, is a little easier, and then comes a long steep winding road which is traversed for a considerable distance on a high level. From this road the traveller can see for many miles, and such places as Frere, Winterton, Ennersdale, Estcourt, Willow Grange Highlands and Mooi River can be distinguished quite clearly to the east.

A REST AT TABAMHLOPE.—Tabamhlope, named after the mountain (6512 feet high), and at the foot of which it lies, is reached. There is an excellent store here, also a daily postal service *via* Estcourt.

"Champagne Castle" (Cathkin Peak) is also accessible from here.

FROM TABAMHLOPE TO "GIANT'S CASTLE."—An early start should be made from Tabamhlope if the trek to Witteberg (close to "Giant's Castle") is to be completed before dark, as the road is rough, and the Bushman's River or its feeders have to be frequently crossed.

KALEIDOSCOPIC SCENERY.—The scenery all along the track is one of continual change and beauty. The hills on either side are scarred and riven by gaping ravines and dried water courses, the crests and slopes are covered with reddish-brown grass, studded with the silvery-foliaged sugar-loaf tree; almost parallel to the wagon track, the picturesque Bushman's River winds its devious course, while in the distance looms up in silent grandeur the rugged Drakensberg, in all a scene of infinite charm and variety.

CAMPING AT WITTEBERG.—The camping ground for the night is Witteberg, situated at the foot of a hill overlooking the rapidly-flowing Bushman's River, and, four or five miles as the crow flies, rises the rocky-crowned heights of the Berg, towering above like huge impregnable fortresses. To the right and left rise rugged hills, with frowning precipices half-way up their sides and toppling crags, in the crevices of which ferns and moss grow in abundance.

SLEDGE ONCE AGAIN.—At Witteberg it is again necessary to leave the wagon owing to the physical formation of the country, and sending the camp impedimenta by sledge over the hill the traveller may follow on horseback, or on foot, along the course of the river to the Government Reserve, from which point tours can be conveniently made around "Giant's Castle."

AT "GIANT'S CASTLE."—GOVERNMENT GAME RESERVE AND PUBLIC PARK.—The district in the vicinity of "Giant's Castle" is particularly interesting, owing to the fact that the Government has reserved a huge tract of land as a Game Reserve and for a public park. The following note explains the objects of the Government:

"The reservation of certain large areas of what might fitly be described as waste lands for the purpose of forming Extensive Public Parks and Game Reserves, has had the consideration of Government for several years, especially in view of the fast disappearing fauna which only a few decades ago had possession of the whole of Natal."

Reserves have existed in Zululand for some years, fairly stocked with the Large Game now absent south of the Tugela, which by their position and character are almost safe against depredation, but the intention to form another in a more accessible district, and stocked with a different class of game, found support in a small Parliamentary Vote during 1903-4 for the formation of a reserve on the steep and broken slopes of the Drakensberg, forming the head-



Panorama of Cathkin Peak



Cathkin Peak

(Altitude 12,000 feet)



Massive Buttresses



Source of the Little Tugela

areas of the Bushman's and Little Tugela Rivers. This region, which consists of about 30,000 acres of exceedingly wild country has been constituted the "Giant's Castle" Game Reserve, and steps have been taken towards rendering it, at all times, a safe sanctuary where game may live and breed undisturbed.

The Forester of the Game Reserve is also entrusted with the *Protection of the Bushmen's Paintings in the caves on the Reserve*. These caves were used to some extent as shelters during the guarding of the border against rinderpest, and also during the Boer War, and have suffered somewhat thereby, but as they are fairly numerous, some have quite escaped damage. The best known caves are those near the forester's cottage, and others further up towards the Bushman's Pass.

The Reserve, which is situated about 40 miles from Estcourt railway station, contains much of interest to the mountain-climber, the sportsman, the naturalist, the botanist, the geologist, and the antiquarian, as well as to those who wish to have a quiet holiday amidst striking scenery and beyond the range of the postman's daily delivery.

THE BUSHMEN AND THEIR PAINTINGS.—No visit to "Giant's Castle" would be complete without a careful inspection of the Bushmen's drawings or paintings, to be seen in many of the caves on the hills in the Bushman's River Valley.

The race has utterly disappeared—at any rate so far as Natal is concerned—and the enquirer, as he stands in this strange silent land surrounded by only the faintest signs of previous occupation, sees on the rude walls of the rocks and caves, only "the touch of a vanished hand."

The liberty is also taken of reproducing the following notes from the pen of Mr. Maurice Evans, extracted from his original contribution on the subject, entitled : "Cave Hunting in the Drakensberg."

"The immediate vicinity of the High Drakensberg, the country between Mont aux Sources and "Giant's Castle," is almost uninhabited. . . Further east and lower down the valleys of the mountain streams, the kraals of the abantu of Natal begin. Westward the mountain range must be crossed, and the double mountains passed before the villages of the the Basuto are reached. In a not remote past the inner recesses of the Drakensberg were inhabited by Bushmen. The principal remains of this singular people to be found are the coloured drawings—principally of animals—which in many places cover the rocks near the caves in which they lived. The drawings are representative of the fauna of the mountains—eland, rhe-buck, reedbok, oribi, wild-pig, and other animals, and are executed in a most spirited and natural manner.



Gourton Road, near Bergville

"The general character of the country in which these people lived is open and grass-covered, many clear bright streams running in the valleys from the Berg to join the Tugela, Bushman's River, the Umkananzi. Some of the valleys contain bush, but generally speaking the country is open, rolling, wind-swept, and everywhere carpeted with grass.

"It is a most unfortunate circumstance that the whole of this particular section of a most interesting race seems to be extinct, at all events, as far as the Natal boundary of the Drakensberg goes. It may be thought that in the malutis between the crest of the Drakensberg and the Basuto kraals there may still linger some remnants of this people. If they do so exist, their life must be an extremely hard one, for this is a region 10,000 feet above the sea, with so short a summer that grain will not ripen; and in winter, as I have myself seen, with running streams frozen so hard as to bear the weight of several men. It is to be hoped that the little folk may still be found here, and something be learned of their language and lives. In the early days of Natal they raided both the white and black pastoral people living below them, and from the neighbourhood of their high cave dwellings in the Berg watched their opportunity and swiftly descended and captured the cattle and horses belonging to farmers or Kaffir kraals. Their last descent was about the year 1868, when they gathered to the mountains the horses of the farmers of the Upper Mooi River. A commando of Europeans and natives was called together, and the Bushmen followed right into the Berg; many were killed, others—principally women and children—captured. It is recorded that when in flight they mounted the wild unbroken mares, which had never before been ridden, and galloped them into the mountains. The women and children captured were taken by the members of the commando as servants, but not a single one is now left among the farmers. They disappeared without warning, approximately about the same time, but where they went is unknown. It may be that, their old haunts being known and unsafe, they went over the mountains into Basutoland into some refuge of the remains of their people, who may or may not still be there.

"A similar instance amongst the desert bushmen is given by F. C. Selous in his 'Hunter's Wanderings.' He records that boys from five to twelve years of age were taken away by the Matabele, but they all escaped and disappeared mysteriously. I am told that a few genuine Berg Bushmen still live on the Ntabu Nkulu, on the borders of Pondoland and East Griqualand, who, having abandoned a predatory life, have removed one of the prime causes for their extinction elsewhere, and have remained in the caves of that mountain. It is a melancholy fact that a race, fitted by nature for the life they were leading, with apparently some admirable characteristics, should disappear in so short a time from the face of the earth, leaving only a few remains which will soon be lost for ever. The fastnesses of the Drakensberg, wild and remote, will always, to those who can live in the past, be connected with this wild and mysterious race."

THE BUSHMAN'S RIVER PASS.—Before leaving "Giant's Castle" a visit should be made to the historic Bushman's River Pass, made notable by the Langalibalele Rebellion (1873-4), in which three Natal Carbineers—Erskine, Bond, and Potterill, and two loyal natives were killed. The men were buried some days afterwards in the desolate pass where they fell, their grave being marked by a pile of stones.

THE VIEW FROM "GIANT'S CASTLE."—Looking back from the mountainous heights (9,000 feet high) upon Natal, a more lovely or extensive landscape can scarcely be imagined. To the right and left huge rocks stand out on the rugged summits in grotesque forms, from which descend perpendicular cliffs and deep kloofs clothed in dense bush, from which long spurs of the mountain are thrown out, terminating in rolling plains, and beyond, hills and deep valleys. Far away to the right continues the Drakensberg, with its summits kissed by the clouds in a loving embrace.

The Orange River is close by, a mere stream, taking its rise practically at the head of the pass, 10,000 feet above the sea level, and it is but a short stroll into Basutoland, the confines of which reach to the head of the pass. At such a height the atmosphere is rarefied and the air extremely cold, although even on this exposed mountain top may be found a natural garden of rare and beautiful white Berg "everlastings."

THE RETURN HOME.—It is with no small regret that the visitor turns himself away from these mountains and the ever-beautiful gorge scenery of the Bushman's River Valley, but the return journey has to be commenced and in a little while the Witteberg camp is regained.

TREKKING TO MOOI RIVER CAMP AT SPRINGS.—With an early start next morning and following the course of the Bushman's River leaving the mountain of Tabamhlope on the left, the main road to Mooi River should be reached about mid-day. This road has recently been much improved, and considering the nature of the country which it traverses, is one of the best in the Province.

After an outspan of a few hours the next trek should be made to Springs, calling perhaps at the Holmesdale Store and Post Office, *en route*. SPRINGS, where—as its name implies—a plentiful supply of water may be had, is made the camping ground for the night.

BACK TO CIVILIZATION.—An early start must be made the following morning if Mooi River is to be reached in time to catch the down train for Pietermaritzburg and Durban. Passing through Weston a little before noon, the last trek is accomplished in ample time to allow parties time to arrange all luggage matters, to partake of luncheon at one of the hotels, and join the down train. A run of $3\frac{1}{2}$ hours to Maritzburg, or seven hours to Durban, and the tourist will find himself once more in the environment of civilization and comfort, with the recollection of a most interesting and profitable journey amongst some of the grandest and wildest of South African scenery.

So ends a tour which must be filled with associations invigorating to the body, stimulating to the imagination, and not without that appeal which nature's grandest pictures make to man's moral constitution.

CONCLUDING NOTES.—While Ladysmith is undoubtedly as good a starting place as can be fixed upon for the visitation of the Mont aux Sources group, there are other places equally as convenient, such as Winterton and Colenso, from which to issue, all arrangements having first been made for wagon transport and horses. Station Masters of these centres, on being applied to, will furnish full information as to these details and route to be taken.

Those desirous of touring the "Giant's Castle" district can make Estcourt, Mooi River, or even Nottingham Road (main line stations farther south than Ennersdale) their starting place, all necessary provision as to conveyance and equipment having previously been made. Full information will be supplied on application to the respective Station Masters.



Panorama of Government Game Reserve at "Giant's Castle"



Bushmen's Drawings

From the Cities to the Hills: A Mountaineering Excursion to the Top of Mont aux Sources *via* the Orange Free State

Leaving, it may be, Johannesburg, Pretoria, Bloemfontein, Durban or Maritzburg, by the evening trains, or joining these trains at an intermediate station, the intending tourist to the Mont aux Sources is deposited at Aberfeldy Station—on the Kroonstad-Ladysmith line—the following morning or afternoon, according to the direction from which he is travelling. Here he is met and driven to Rydal Mount Hostel, situated on the gentle slopes of the mountain from which it takes its name. The drive is far from uninteresting as the River Elands has to be negotiated no less than three times, the first and second crossings being made during the early part of the journey. It is possible, however, to reach Rydal Mount without crossing the river, but this entails a more circuitous route, and a route only resorted to when the rain makes the river dangerous to ford.

All is bustle and hurry in the farmyard where the horses are being harnessed and the foodstuffs, bedding, cooking utensils, etc., collected, preparatory to being strapped to the pack-horses; whilst in the hostel there is an early breakfast and final preparations are being made for the three days' journey into the mountains. Under the supervision and personal conduct of Mr. T. Casement, the proprietor of the Mont aux Sources hostel. All is now ready and away go the little beasts, every step being surely made, no matter whether it is down a steep decline, along a narrow ledge, or crossing a river, they very rarely make a slip.

The pack-horse—a regular commissariat department—is led by the Basuto boy (Maluto). This boy, in addition to acting as general factotum during the trip, is also an additional guide, for having lived in the district for something like 30 years, every path and track is old ground to him.

THE FIRST DAY. The first day's journey —16 miles—is made amidst glorious surroundings, the valleys fertile with crops of Kaffir-corn and maize; the hills, the winding river, and above all the majestic mountains—all have a charm of their own.

The first halt is made about 13 miles from Rydal Mount, where the river winds in and out among the mountains, making it necessary for the tourists to cross no less than five times. The horses are off-saddled and turned loose to graze whilst a fire is lighted, tea made and light refreshments partaken of.



Government Game Reserve, "Giant's Castle" (altitude 11,000 feet)

1—Source of the Bushmen's River 2—"Giant's Castle" 3—Deep Kloofs

LEGISLATIVE LIBRARY
ONTARIO



Grave of Three Natal Carbineers and two loyal Natives (Summit of Bushman's River Pass)

The eye quickly detects at one point in the vicinity that the river makes a sharp turn at the foot of a hill shewing at its base hard rock. The continual swirl of the water, in flood and out of flood. has washed the stones away, forming what is now known as the Verandah Caves. A little further on the bed of the river is composed of white stone, and when looked at from an elevation, has the appearance of a series of marble baths. To this spot has been given the name of *Roman Baths*.

The journey is continued, now far away from any sign of habitation, by narrow tracks with the bed of the river far beneath. A series of zig-zags down the hillside, the river again crossed, and a sharp ascent on the other side, and the first day's journey is ended (6,100 ft.).



Bushman's River Pass

THE NIGHT'S RETREAT.—The cave, where the night is to be spent, is the recognised place of call for the Basutos *en route* to and from Witzies Hoek—that part of the Orange Free State from which the ascent of the Mont aux Sources is made—with their packs of wool for sale or loaded with articles of exchange. The cave is approximately 32 yards wide, 15 feet high, and 15 yards from front to back. It would appear that many centuries ago a sudden upheaval of the earth occurred, leaving the fissure in the side of the mountain as it appears to-day. The floor, roof, and sides are of stone, the roof being a single arched span. No doubt the cave has been used as a shelter from the elements for some considerable period, for cut in the stone are many names and dates, one of the oldest going back to 1879.

THE SECOND DAY.—Much has to be accomplished the next day, so it is necessary to make an early start. Whilst breakfast is being prepared a dip in the river (it will be a cold operation) may be welcomed, the water coming fresh and clear from the heights above. Although but a few miles from its source, this stream at times swells to a roaring torrent, and it is then necessary to journey by a longer route back to the hostel.

The climb from the cave to the summit is one never to be forgotten by those who are fortunate enough to undertake it. The climbing is done not by the tourist, but by the ponies. The paths are never too steep, never too narrow, never too slippery for their nimble feet; surely, only a pony bred in the mountains could climb so well and safely as these intelligent little beasts!

A party of Basutos may, perhaps, be met descending the same pass the tourist is ascending. Their ponies are packed pannier-fashion, with sacks of wool, and the head of one pony harnessed to the tail of the pony in front by a plaited rope of grass. By their sides, or roaming at large over the slopes of the mountain near the paths, are many small ponies.

The top stage of the pass is strewn with boulders and loose rocks, and out of consideration for the ponies the traveller accomplishes this portion of the journey on foot, driving the horses ahead; it is, however, possible to ride to the top.

IN CLOUDLAND.—The tourist is now at a height of 9,500 feet above sea level, and after the steep climb is eager to stay awhile and view the magnificent panorama spread out below. Truly, this is a land of magnificent distances! But this is not the termination of the morning's excursion. The finest views are to be obtained from the other side of the Berg, and this necessitates a sharp canter of about two miles over fairly level but very spongy ground. It is here that the rivers Tugela, Orange, and Elands rise, the former flowing through Natal, the Orange through the southern part of the Orange Free State, and the Elands—which has been crossed many times *en route* from Mount Rydal—ultimately finding its way into the Vaal River which divides the Orange Free State from the Transvaal.

A halt is made on the Natal side of the Berg, where the Tugela takes its plunge of 2,000 feet to the regions below, thereafter silently and beautifully winding its way along the bottom of a mighty gorge.

The mid-day meal is partaken amid awe-inspiring surroundings; a magnificent view of Natal stretching out along the lower levels; the mountain slopes furrowed by deep cañons; the winding streams, verdant valleys, towns and villages very small in the distance—are all discernible from the immense height.

Like some silent sentinel the buttress of the Berg stands out majestically from the other part of the mountain.

As far as is known this escarpment has not been scaled, the task could only be attempted by experienced mountaineers properly equipped, as many difficulties would be encountered on the Orange Free State side, whilst in the Natal Territory there is in places a sheer drop of thousands of feet.

Apart from the noise made by the wind whistling through crevices in the rocks, all is silence. There are no trees along the top of the Berg and game is very seldom met with at this altitude. The Berg is, however, covered with a species of heather, with here and there a plant very much resembling the Eidelweis.



Mont aux Sources

1—Cloud Effects from the summit *2—The Cave*

CLOUD EFFECTS. To be at the summit of Mont aux Sources at a time when the base of the mountain is enshrouded in clouds is very enchanting. As far as the eye can see the clouds appear as fields of snow with mountain peaks *projecting* through, whilst detached fragments come stealing up the mountain sides to be hurriedly dispersed by contrary breezes—

> "Like the baseless fabric of this vision
> The cloud-capt towers, the gorgeous palaces
> The solemn temples, the great globe itself,
> Yea, all which it inherits shall dissolve
> And, like this insubstantial pageant faded,
> Leave not a rack behind."

—so soon as they reach the summit.

The descent through the pass is made during the afternoon, and the cave reached before sundown.

THE THIRD DAY. The following day is spent more leisurely in returning to the hostel over the same route taken on the forward journey. Upon arrival all is again bustle. A hot bath and a cup of tea soon compensates for any fatigue which the excursion may have entailed, and the invigorating mountain air has again stimulated the appetite of the traveller.

With the return to Aberfeldy station by cart, thence by rail to our destination, a very pleasant and instructive holiday comes all too soon to an end.

It is neither essential nor desirable that the tour described be taken in the short time indicated, and the time can be extended by arrangement with Mr. T. Casement of Rydal Mount.

NOTES ON THE GEOLOGY OF THE DRAKENSBERG RANGE

By WILLIAM ANDERSON, F.R.S.E., F.G.S., late Government Geologist, Natal

The Kahlamba or Drakensberg Mountains forming the western boundary of Natal, are mountains of denudation, and are a magnificent example of subærial erosion. Their Natal aspect presents the denuded eastern edge of the plateau of the high veld, which forms the major portions of Basutoland, Orange Free State, and the Southern Transvaal. The range, as a range, only appears so from the eastern Natal side, because the denudation caused by the Natal rivers, the larger and more important of which have their sources in the neighbourhood of the slopes of the Drakensberg, has lowered the level of the whole country from the Drakensberg border to the sea coast. The physical geology of the country has lent itself admirably to this, inasmuch as the strata forming the western half of the Province consists chiefly of shales, with sandstones and occasional basaltic intrusive rocks, which are usually local in occurrence. Nearer the coast the Granite, Metamorphic rocks, and Table Mountain sandstones might have offered an obstruction to the denudation, had it not been for the fact that the last-named formation was of comparative thinness and rests unconformably on the granites, through which erosion is fairly easy. The rivers have thus cut through the outcrops of the various geological formations nearly at right angles, and the result has been that the surface of the country has been formed into a series of plateaux, from the sea coast to the Drakensberg range, the top of which forms the highest plateau.

At the point where Basutoland joins Griqualand East the main Drakensberg range bends south-westward and passes into the Transkeian territory, but from the point mentioned

a subsidiary range of comparatively low elevation passes along the boundary between Griqualand East and Natal, terminating in the Ingeli mountain, which consists almost entirely of intrusive basaltic rocks with scanty outcrops of *Ecca* shales among them. In fact, in the valley of the Ibisi river outcrops of *Ecca* glacial conglomerate occur. Away to the north, where the range forms the boundary between Natal and the Orange Free State, and where it terminates in the southern Transvaal, the general elevation is much lower, and, as shown by the frequency of passes, it is much more accessible and does not present any great difficulties to the climber. Even the more or less isolated peaks are quite easily climbed. As far as the northern point of Natal at Majuba Hill and Langs Nek the upper *Ecca* coal-bearing series forms the range with the usual intrusions of basaltic rocks. From near this point the range divides into two, one portion passing towards Standerton and the other to the east towards Piet Retief.

The rocks forming the Natal slopes of the Drakensberg and many of the foothills for 40 or 50 miles from the main range lie practically horizontal, and in descending order are as follows:—

		Amygdaloidal basaltic lavas.
		Cave sandstones.
		Red beds.
Upper Karoo	...	Stormberg series.
Lower Karoo		Beaufort series.
		Ecca series (not including the glacial conglomerate).

So far as is at present known, there is no unconformity between any two of these divisions of the Karoo system in Natal, with, of course, the exception of a slight unconformity between the Cave sandstones and the Amygdaloidal basaltic lavas. Representatives of all these series are not always present in every section exposed on the face of the Drakensberg slopes and the foot-hills. On that face of the Berg overlooking the Upper Tugela probably

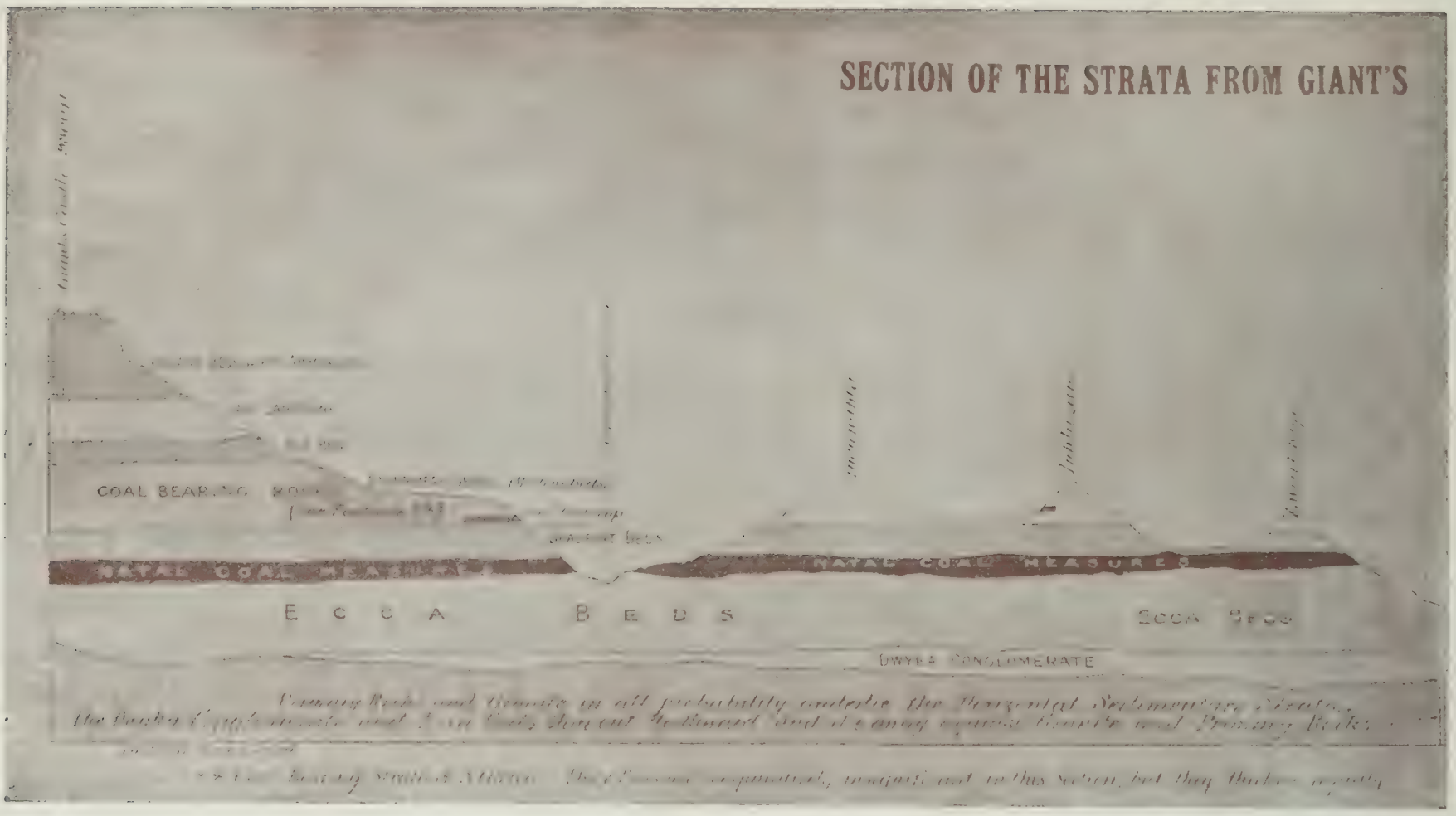


Summit of the Berg

the whole series are represented for at the township of Berlyville fossil (*Glossopteris*, *Phyllotheca*, etc.) of the upper *Ecca* series are present in the shales. This is of course including the isolated mountains intervening between the Berg proper and the magistracy. Taking the Berg at other points, to the west of Underberg or Himeville, no rocks older than the Beaufort series occur, and this is the case nearly as far north as "Giant's Castle." To the west and south-west of Newcastle the coal-bearing series of the upper *Ecca* are present. The non-existence of the upper series is in all cases due to denudation, but in the case of the absence of the outcrops of the lower series it is due to the fact that denudation has not gone deep enough through the overlying strata to expose them.

In the Beaufort Beds of Mooi River, and on the Umkomazana River the fossil bones of reptilia, such as *Dicynodon*, etc., occur fairly plentifully. In many localities in the strata of the upper portions of the foot-hills, at the Macquaqua Mountain at Bulwer and of the lower portions of the Berg proper, the fauna of the Stormberg series (*Thinnfeldia* etc.) is distinctly recognisable. The cave sandstones and red beds have as yet been investigated only in a very cursory manner, but the fossil remains, although of a most fragmentary kind, point to the identification of these series as being present in the upper portions of the Drakensberg range. The beds of sandstone in all these series, with perhaps the exception of the *Eccas* from their occurrence among shales of a most friable and easily eroded character have lent themselves to the formation of cave shelters quite naturally. The hollowing out of the shale beds underneath a series of overlying sandstones is originally caused by the natural agents of aerial denudation. This natural excavating has been, no doubt, accelerated, and the hollow enlarged by the frequent presence in it of the natives who had taken shelter there, until as we find the hollows at the present day, when they are no longer used for the purpose of shelters, large excavations with a sandstone roof and often walls partly sandstone and partly shales, or entirely sandstone. It is no uncommon thing to find that the walls and roof are covered with sketches of animals, which can be identified, and also pictorial representations of episodes (chiefly hunting) in the life history of the people who were the artists. In many cases I have seen such artistic efforts represented on flat joint-faces of variously coloured shales ; but in the majority of cases the native artist, as in Australia, preferred sandstone as his painting surface. In the Drakensberg and the low country to the east these paintings are attributed to the Bushmen, who are now extinct in Natal, and it is probable that some of them are of great antiquity, while others are, comparatively speaking, of quite recent origin. For instance, the case of the pictorial representation of a boat on one of these shelters, near Underberg, cannot date further back than a few hundred years, the natives never having used boats, as the rivers are rarely navigable for any distance, and lakes do not exist in most parts. It is more than probable that the artist had been to the coast and seen ship's boats. On the other hand, the representation of animals are not only interesting, but present a record of animals, many of which are now entirely extinct in the locality in which the paintings occur. The late magistrate at Impendhla, who spent a number of years at the Upper Tugela magistracy, and who has an intimate knowledge of the Berg country in that district, informed me that he has recognised among the drawings in one of these shelters representations of a lion, tiger, puff adder, etc., etc. Although it is not so long since the last lion was killed in Natal, it is questionable whether, in a cold climate like that of the Drakensberg on the Upper Tugela the lion ever existed. At the same time it is possible that at one time it may have occurred in this district during the summer. It is also possible that the artist may have seen the animal in some other part of the country and delineated it from memory. The range of the occurrences of these cave-shelters is very wide, in the neighbourhood of the Drakensberg, both laterally and vertically, and it would seem from this that the Bushmen, as the weaker race, were forced by the natives who occupied the open country to the east, into the fastnesses of the mountain range, where they kept up a constant retaliation, in the form of cattle raiding on the stock of their more fortunate neighbours, until they were altogether exterminated.

Owing to the easily decomposed nature of the sandstones and shales, the greater number of these Bushman paintings are very indistinct, and have undergone natural mutilation because of the scaling of the sandstone surface on which they were painted.



Some of the finest examples are those which have decorated the roof of a shelter, where the roof slab has fallen on the floor, and the drawings have been preserved in a good state of preservation by being embedded in the dry dust of the floor, which has kept the air from attacking the colouring material.

The more elevated parts of the range consist of Amygdaloidal basaltic lavas, which, however, in many localities have undergone complete denudation. The presence of these lavas has to a very large extent been the primary cause of the preservation of the plateau. They have, at one time, extended eastwards, over what is now Natal, much further than at present, but this portion has undergone denudation. Relics of them, in the form of water-worn fragments containing amygdules, which have been shed from the eroded portions of the lava sheets, are still to be found in the river gravels of the main river-valleys, long distances to the east of the present slopes of the Drakensberg. These have, of course, been carried long distances from the Berg by the waters of the rivers. The lavas were erupted from a series of volcanic vents, which superficially formed cones. Surface evidences of some of these are still recognisable, particularly in the neighbourhood of Matatiele and other parts of the Transkeian territory of Cape Province. It is quite probable, however, that further north, nearer the Natal border, the remains of other volcanic pipes and orifices of eruption, will be discovered, which were the immediate vehicles for the outflow of the lavas which have spread over what is now the top of the Drakensberg on our border. The period at which these outpourings of lavas occurred was probably during the initial stages of the elevation of the southern portion of the continent during late Jurassic times.

The valley of the Tugela River, for a considerable distance towards the Berg consists of upper *Ecca* shales, but before reaching the old magistracy of Upper Tugela, above Bergville, and much sooner on the south side of the valley, the isolated mountains forming the foot-hills of the Berg, and usually capped by thick bedded sandstones, are composed of Beaufort beds at their bases, while their summits are probably of the Stormberg series. These isolated mountains are present for over 20 miles from the actual base of the Berg slope proper, and are much intersected by the subsidiary tributaries of the Tugela, which cut deeply into the Beaufort series. The lower part of the actual Berg slope consists of the Stormberg series, which are overlaid, towards the top of the range, by the Red beds and Cave sandstones, with occasional outliers of the Amygdaloidal basaltic lavas.



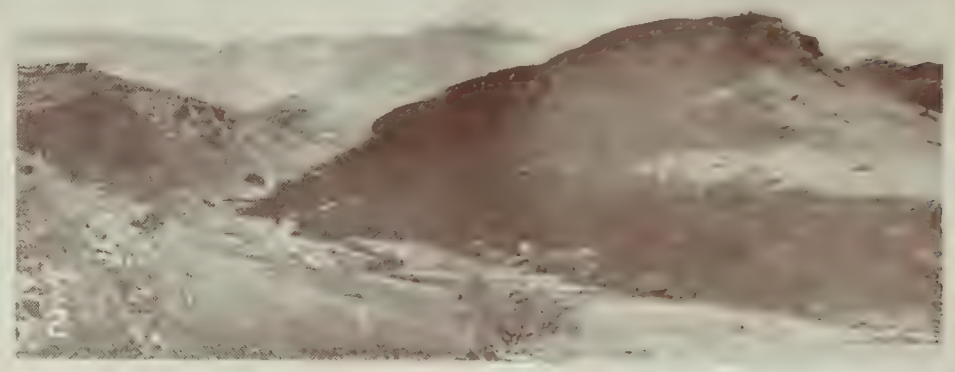
The jagged sky-line contour is here produced from the irregular denudation, chiefly of the upper two sedimentary formations, the cave sandstones and the red beds, and the results have been the production of most varied forms of the most interesting and fantastic character. The upper portion of the whole range presents a scarred appearance on the face of these outcrops. These serations are the results of the erosion caused by the storm waters and those from the melting snows, wearing vertical channels down the faces of the sandstone and shale exposures. Both "Champagne Castle" and the northern portion of the Mont aux Sources are isolated from the main face of the range for a considerable distance below their summits. These two detached outliers are, however, of considerable bulk. At some distance to the south of the Mont aux Sources an outlier occurs, which forms a series of columns of some thickness, irregularly joined together, along the joints at right angles to the cliff. These have been worn free from the main slope by the denudation of the joints which run parallel to the face of the range. About half-way between Mont aux Sources and the "Cathedral" a somewhat similar series of columns occur, but here the contour is much more rugged, owing to the joints at right angles to the range having been denuded to a much greater depth, with the result that the sky-line contour presents a toothed or serrated appearance on a gigantic scale. Of the other masses which presents contours above the ordinary sky-line the forms are most varied, while the precipitous faces, which are not always perpendicular, are presented to all points of the compass. Although, from a distance, the Berg seems to have a single precipitous sloping face, it is not so, for between the farthest edge of the Berg from the spectator, and the last Kaffir habitations below, there is an uninhabited zone, comprising innumerable inaccessible ridges of considerable elevation, with deep and rugged valleys, so that before the actual precipices are arrived at a great deal of severe travel has to be undertaken. This applies to most parts of the Berg, but is not prevalent everywhere. For instance, the base of Mont aux Sources can be approached to within about ten miles by cart and sledge, and the country intervening between the last camping place and the foot of the cliffs, which form its north-east and south-west faces, over which the waters of the Tugela River fall, is not of a particularly arduous character to the mountaineer.

At a varying distance eastward from the Berg, about the horizon of the junction of the *Ecca* series with the Beaufort beds, enormous masses of intrusive basaltic rock occurs, but as the range is approached nearer, the intrusive rocks are of much less frequent



Native Rock Shelter (Overhanging Rock. 60 feet wide







1—Foothills of the Berg

2—Valley of Bushman's River

3—Fog at the Little Berg

occurrence and are in less bulk, until on the Berg itself they are very rare. That is to say, that among the higher sedimentary strata of the Upper Karoo system, the evidences of intrusion are much less frequent.

That part of the Drakensberg which seems to me to be the most impressive for boldness of outline and splendour of aspect is that north of "Champagne Castle," within the drainage area of the sources of the Tugela River. The range, as far north as Mont aux Sources, is over 8,000 feet in general elevation, but to the north of the latter mountain it diminishes considerably in height and becomes much broken up into isolated heights, such as Mt. Tintwa, Rensberg's Kop, Bloy's Mt., Nelson's Kop, etc., etc. A magnificent view of this portion of the range can be obtained from any part of the Tugela River valley as far as 40 miles away from the waterfall on Mont aux Sources, by one day's drive from the railway at Ladysmith, Frere, Ennersdale, or Estcourt.

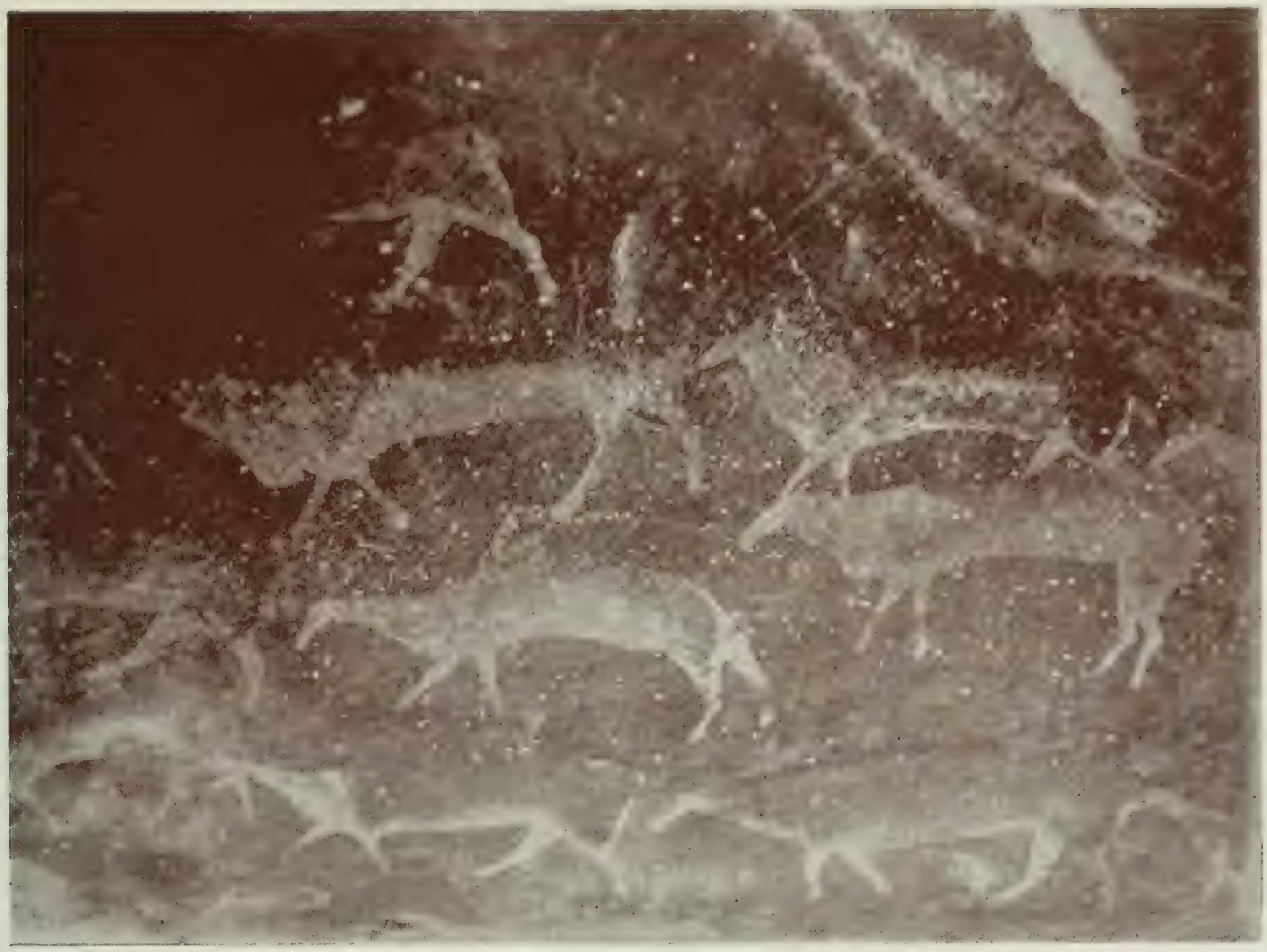
Another day's trek will take one to certain points within five or ten miles of the base of the scarp. A nearer approach can only be effected on foot, and along this area it is practically an unknown and inaccessible series of rugged mountains and deep impassable gorges. No known pass exists in this stretch of mountains between the Koodoo Pass immediately north of the Mont aux Sources and south of the "Champagne Castle," a fact which bears out the ruggedness and inaccessibility of this inhospitable region.

From "Giant's Castle" southward the actual Berg is much more easily approachable, because the country formed of the foot-hills is more open and less rugged, while the general level of the river systems approaches nearer to the level of the lower part of the Berg scarp. The result is that the ridges from the main range are longer and have more gentle slopes, because of the less grade of the rivers which have, therefore, not produced erosion to such great depths as further north in the range. The main scarp is not nearly so scarred as the northern part, and isolated precipitous rock-masses are of comparatively rare occurrence. Where they do occur, they are not so precipitous nor of such great bulk.

From various points on the main line of railway distant views of the higher Drakensberg can be obtained. The principal of these are:—From the neighbourhood of Ennersdale an extensive view from Mont aux Sources to south of "Giant's Castle," the most imposing portion of the Berg; from between Beacon Hill and Willow Grange, that part of the Berg to the north and south of "Champagne Castle"; from between Highlands and Mooi River a large portion to the north and south of "Giant's Castle," which can also be seen from between Howick and Cedara.

To the mountaineer this range presents many declivities and rock-faces which are inaccessible to ordinary climbers. Numbers of isolated pinnacles, buttresses, precipices, etc., occur, but usually in out of the way localities, which would try the best nerved and most experienced mountain climbers. There is certainly nothing like a Jungfrau or the impossible peaks of the Himalayas or the Andes, or even anything approaching a Mt. Kenia or a Mt. Kilimanjaro of Central Africa, but taking everything into consideration there is admirable scope here for local mountaineering, more so, for instance, than there is in Britain or even in Australia. The base of the range is so far off the beaten track that only parties with organised transport can undertake the climbing of the most dangerous parts. There are, however, many difficult heights within easy accessible distance of the main railway and farming districts with fairly good roads, which could be conveniently reached for a day or two's climbing.

The rock-faces consist chiefly of shales and sandstones. The basaltic rocks which sometimes occur are often exposed as extensive rock-faces, through the denudation of the shales from their neighbourhood. The shales are exceedingly friable and disintegrate, even on a more or less vertical face, into very small fragments, which form a most treacherous foothold. The sandstones are also exceedingly friable and present more or less rounded contours on exposed disintegrated surfaces. They are well jointed, but the joints do not, as



Bushmen's Drawings

a rule, penetrate to great depths. The sandstones and shales usually form the most important pinnacles and rock-masses, and are therefore the rocks which are most likely to be negotiated in climbing. The basalts on their outcrops are generally much decomposed, and owing to the fact that the climate is so dry, the decomposed material on these outcrops does not get washed away, which would leave a clean hard rock-surface, as is the case in all temperate and sub-arctic climates.

From whatever point in Natal this range is viewed, it presents features apparently similar to most mountain ranges, but when a more intimate knowledge of its physical geology has been obtained and it is realised that it is the irregularly broken denuded edge of an extensive plateau, it has greater significance in relation to the physical geology of Natal and the neighbouring provinces.

The northern and southern portions of the Berg not being of such great height nor of so rugged a character as the central portion, passes which will allow of the passage of animals are of frequent occurrence, but from the Koodoo Pass north of Mont aux Sources to the south of Bushman's Pass, between "Champagne Castle" and "Giant's Castle", there is not one known by which animals can pass from Natal over the range into Basutoland. It is true, however, that in this area there may be points known only to the natives where they can make an arduous journey through the Berg on foot. In the days of the now extinct Bushmen, it is said to have been marvellous with what facilities these small wiry freebooters made their way up into the inaccessible recesses of these mountains, particularly when pursued by the Natal natives, after a cattle raid into Natal. But where these nimble and fearless mountain pigmies could go with safety and impunity the ordinary white man dare not follow, unless he was imbued with the courage and experience of a trained mountaineer.

The best time of year, both to view the beauties of this range as well as for the comfort of travelling, is during the winter season—the months of May, June, July, and August. During the latter months it is very frequently disagreeably windy, and in August rains may be prevalent. At other times of the year the weather is usually insufferably hot, and the atmosphere is often hazy with the smoke of grass fires, or the Berg is enveloped in masses of clouds or mist. In the cold, clear, fresh air of a winter's morning the range stands out in wonderful relief, with its remarkable changing shadows, all seemingly so close that it is almost impossible for one to realise the greatness of the intervening distance. On such a morning, say, from the valley of the Upper Tugela, to watch in the still, cold, grey light of early dawn the first warm tints of the rising sun touch the black mass of the higher Drakensberg, as gradually, with the advancing light, the various members of the range become differentiated, until, with the increasing sunshine the whole scarp becomes bright, except for the intensely black shadows of varying form, which change so rapidly as the sun's rays become more vertical, is a picture which sinks into the mind, never to be eradicated, and which in after years is often unconsciously drawn upon as a source of exquisitely pleasant recollection. It is certainly not so awe-inspiring in its awful grandeur, or in the feeling of immensity, desolateness, and utter inaccessibility of the tier upon tier of mountain ranges, culminating on the distant sky-line, a hundred miles away, either in the snow-white peak of Kinjinjunga, or Mount Everest in the Himalayas, as seen from the neighbourhood of Darjeeling at sunrise. If it remains calm after a clear morning, when the sun has attained some height, there is commonly developed in the atmosphere a beautiful bluish haze, the origin of which is inexplicable, but the effect is marvellous and indefinable; softening, as it does, the outlines on the sky-line and the shadows, while leaving the atmosphere brilliantly clear and forming a mellowing medium through which the harshness of highly contrasting outlines and colours are subdued in a wonderful and pleasing way. This is purely an attribute of that portion of the range between Mont aux Sources and "Champagne Castle," as seen from Upper Tugela. To a much lesser degree it sometimes occurs further south along the range.



"The mountains rent in twain."


WONDERBOOM
PRETORIA
BELFAST
MACHADODORP
KOMATI POORT
KAAPMUIDEN
WITBANK JUNCN
BARBERTON
LOURENCO MARQUES
JOHANNESBURG
GERMISTON
BOKSBURG
BREYTON
SPRINGS
BETHAL
HEIDELBERG
ERMELO
TRANSVAAL
SWAZI-
LAND
VEREENIGING
STANDERTON.
CLYDESDALE
GROOT-VLEI
VOLKSRUST
CHARLESTOWN
HEILBRON
ORANGE FREE STATE
HLOBANE
VRYHEID
KROONSTAD JUNS.
NEWCASTLE
HARRISMITH
SOMKELE
ST LUCIA
BETHLEHEM
GLENCOE JUNC
Umfolozi R
LADYSMITH
WINTERTON
COLENSO
WEENEN
ENNERSDALE
ESTCOURT
LADYBRAND
MASERU
GREYTOWN
NOOI RIVER
NOTTINGHAM ROAD
Tugela River
BASUTO-
LAND
P.M.BURG
Umvoti River
Umgeni River
DURBAN
DONNYBROOK
RICHMOND
MID ILLOVO
CENTRAL
RIVERSIDE
Umkomanzi River
ALEXANDRA
JUNCN
Umzimkulu River
PORT SHEPSTONE
CAPE PROVINCE
— S.A.R —
MAP SHEWING AREA OF
TROUT FISHING RIVERS IN NATAL.



TROUT FISHING IN NATAL

CHAPTER XVI



IT is a shallow as well as a dismal scheme of life which ignores or undervalues the importance of recreation. In these days when Colonial business life is becoming more engrossing and the pursuit of what is called pleasure more laborious, it is more than ever desirable to find occasional change of scene and occupation which shall be really refreshing; which shall at once recruit the energies of the body and give free play to faculties and feelings which are shelved during the daily routine of working hours. Mere locomotion is not enough; our thoughts must be turned into new and pleasant channels, and we must seek places suited to new phases of agreeable activity.

It is of course true that what is recreation to one man might be weariness to another of different tastes and habits, who feels the strain of overwork in different functions of body or mind. A well-earned holiday may be employed in fifty different ways, each having its own fitness. But in comparing various recreations we may fairly give the palm to that which suits the greatest number of cases; that in which a large proportion of intelligent men find healthful bodily exercise, combined with light yet interesting occupation for the mind.

Perhaps none satisfies these conditions more completely than angling. In its most refined form, fly-fishing rises to the dignity of an elegant and ingenious art, combining in a singular degree the active and the contemplative, the practical and the scientific element.

NATAL—THE ANGLERS' PARADISE.—Just as Durban has been steadily growing in favour as a seaside and holiday resort with the visitors from the inland provinces, so the rivers in the midlands of Natal have become increasingly popular with anglers hailing from the Transvaal and Orange Free State, and indeed from all parts of South Africa.

"One of the saddest moments when packing up to move to this land," writes an Army Officer, in the *South African Field*, "was when I came to my fishing rods, and surmised that they would, probably for years, hang idly on their nails; but reality has proved far different, and I can now say without exaggeration that the man without well preserved water on his own land has out here a better chance of sport than he has in Great Britain."



"*Tidlers' Stretch*," *Mooi River*

As most anglers know, trout have now been acclimatised in South Africa, and several rivers have been stocked for from five to ten years; the fry grow about an inch a month—at any rate in their first two years—so most of the Natal rivers are now at their best, and in all probability will continue to afford excellent sport.

THE TROUT SEASON COMES ROUND.—The bursting of the spring time sun which warms to life the tender off-spring of the kingdom of flora is also the time when the sportsman, angler and tourist and seeker after health and pleasure are on the alert to determine when and where to spend a brief holiday season.

To quite a large number of South Africans the early summer months are anticipated as one of the bright spots in the year, when for a brief space the cares of business may be cast aside and life given up to enjoyment.



Trout Fishing in Natal—"An Early Catch"

The daily improvements and increased facilities of modern travel, the easy accessibility of places which formerly were considered out of the way, render it constantly more difficult to determine which resort to select for holiday and sport, but notwithstanding the attractions of other districts, Natal will more than ever command the attention of the angler not only on the score of the excellent sport which her rivers afford, but for the historic interest of the territories through which these rivers flow, the delightful climate which prevails in the midlands of Natal during the fishing season and the conveniences of travel and hotel accommodation which are now available for the follower of Izaak Walton.

FISHING DISTRICTS.—Elsewhere will be found tabulated information as to the facilities available for the tourist and fisherman, but doubtless a little more detail in regard to the different Trout fishing centres may be helpful to anglers residing outside Natal.



Mooi River—The Upper Reaches

BUSHMAN'S RIVER.—This river was stocked in 1890, and in its higher reaches excellent sport may be obtained, but owing to counter attractions of the Big and Little Mooi Rivers it has not been fished so much as in previous years, although those who have visited the stream have had every cause for satisfaction; for if the fish run somewhat smaller, they are numerous and large enough to afford good sport to those who take the trouble to make the journey to this stream. Trout weighing up to 4 lbs. are found in this river. The river and its environment are well worth a visit apart from the attractions for the angler, and the lover of nature will be well repaid for a visit, the country being at all times beautiful beyond expression.

In order to get to that part of the river which is available to visitors, namely, that section which runs through Crown Native Trust Lands, it is necessary to ride or drive from Estcourt station about 20 miles, the distance being about 25 miles from Mooi River station.

A stretch of water in extent about ten miles is under the control of the Natal Anglers' Association. Permits to fish and all necessary information as to facilities, etc., can be obtained from the local Secretary to the Association.

No hotel accommodation is at present available near the river, and it is necessary, therefore, for visitors to provide themselves with tents, or obtain accommodation at a store close to Ulundi Drift.

At Estcourt the "Railway" and the "Plough" hotels afford adequate accommodation at reasonable prices.

Horses, conveyances and mule transport can be obtained in Estcourt or at the Argyle Hotel, Mooi River.



"Giant's Pool," Mooi River

MOOI RIVER AT ROSETTA.—Rosetta station is situated about four miles by rail to the north of Nottingham Road. A more secluded and prettier spot than the country surrounding Rosetta Hotel would be hard to find, even in the "Garden Province." The accommodation is excellent and the scenery leaves little to be desired. An ardent Transvaal angler recently (April, 1909) contributed to the *South African Field* a brief account of a visit to the Mooi River at Rosetta, which by the courtesy of that journal is quoted.

"You leave Park station at 8 p.m., and arrive at Rosetta at about 2 p.m. the following day, the hotel being a stone's throw from the station. The proprietor will arrange for your fishing rights over a distance of some ten miles or more of the river, which runs within a couple of hundred yards of the hotel, and for which rights no charge whatever is made.

"Saddle horses or a trap and horses may be hired at very reasonable rates, and the services of a Zulu or two are procurable for next to nothing.

"The climate here during the fishing season is perfect, the altitude being about 4,800 feet above sea level. The river, as its name implies, is beautiful, and is besides, a typical



Umgeni River

trout stream. It flows in a clear stream over a rocky bottom, the average width being about 30 yards. One of its best reaches is situated about three hundred yards from the hotel. This reach is about two hundred yards long, and this season produced a four-and-a-half pound brown trout and a large number of brown and a few rainbow ranging from half to three-and-a-half pounds.

"The banks of the river, and especially where the rapids and falls occur, are practically free from scrub and rushes, and the angler has in consequence no trouble in either casting or landing. About two miles up stream from Rosetta Hotel the property of that most hospitable and genial of Natal farmers, Mr William Henwood, is reached. Permission to fish on this property, which embraces about four miles of river, will not be refused to any good sportsman. Here will be found a number of particularly good reaches, the drift at the homestead being exceptionally good. From these reaches a number of trout, averaging about three pounds, were taken this season. A pleasant recollection of the trout taken from this part of the river is their exceedingly good flavour, due, of course, to the nature and condition of the food supply.

"What to my mind is, however, the best reach of the river, and where the largest fish are to be found, is at a spot known as the Falls, a distance of about ten miles upstream from Rosetta Hotel. Here, in beautiful scenery, the crystal water falls from a height of about forty feet into a large, seething and foam-bespattered pool, the water running off in a succession of splendid rapids.

"About five hundred yards from the Falls, and above them, is the homestead of Mr. Downie, a farmer and expert fisherman, who will put anglers up at a very reasonable charge. In a long rapid immediately below the homestead, Mr. Downie this season killed a magnificent 6-lb. brown trout, one of the largest killed in these parts. The favourite feeding ground about here, however, appears to be the pool immediately below the falls and the rapids below them. The best way to reach this spot from Rosetta is to hire a pony and proceed by road. A ride of an hour and a half will take you to Mr. Downie's homestead. The pleasure derived from a ride over those magnificent Natal hills is in itself worth the money.

"The progress of the trout down stream seems remarkably slow. From the evidence of local residents, the fish seem to have taken some eighteen months to two years to reach Rosetta from the spot where they were first put in. This may perhaps be due to the fact that most of the trout appear to be the brown, and these, I believe, although I am open to correction, do not readily seek pastures new.

"From Rosetta to within a mile or so of the Falls the trout will look at nothing larger than a No. 14. At the Falls and above them they seem to prefer a No. 9 or 10. March Brown, Zulu and May appear to be the favourite flies, at all events during March. In the dusk the White Moth is quite useful."

MOOI RIVER—NOTTINGHAM ROAD.—This river was stocked by Government in 1899, and on its upper reaches is undoubtedly the finest trout stream in Natal and one of the best in South Africa.

One great charm about this river is the absence of the great beds of reeds that fringe most South African streams. The fish are large and plentiful. The part of the river from which the best sport may be obtained starts from the falls, which effectively bar the passage of the scale fish or "Scaleys," and right up from there to its source, a stretch of something like 40 miles, the river teems with trout.

In March of last year three well-known anglers from the Transvaal visited these waters and the following report taken from the *South African Field* speaks eloquently of the success of their visit to this Angler's Paradise.

The party had capital sport during their three weeks trip, catching no fewer than 563 trout, some of which scaled 3½ lbs. To those amongst our readers who have experienced the delights of trout-fishing in the Old Country, the catch will come as a revelation as to possibilities of the sport in South Africa.



"Just Hooked"



"In the Net"

Trout Fishing in Natal

The Mooi River affords some of the best fishing in South Africa at the present time. The particular reach which was fished by the party mentioned above is some three hours drive from the Nottingham Road Hotel.

Number of fish and weights: Saturday, 6; Sunday, 5 (one 1½-lbs.); Monday, 12 (from 1¼ lbs.); Tuesday, 10 (from 2 lbs.); Wednesday, 5 (from 2 lbs.); Thursday, 21 (1½ lbs.); Friday, 8 (2¼ lbs.); total, 68.

Saturday, 5; Sunday, 15 (2¼ lbs. down); Monday, 22 (2¼ lbs. down); Tuesday, 3 (1½ lbs. down); Wednesday, 12 (1¼ lbs. to ¾ lb.); Thursday, 9 (2¼ lbs. down); Friday, 11 (2¼ lbs. down); total, 78.

Saturday, 19 (3½ lbs., 2¾ lbs., 2¼ lbs. down); Sunday, 6 (1¾ lbs., others 1 lb.); Monday, 20 (2¾ lbs., 2 lbs. down); Tuesday, 10 (1½ lbs. to ¾ lb. down); Wednesday, 14 (1¼ lbs. down); Thursday, 10 (1¼ lbs. down); total, 79. Grand total, 225.

The flies used here with most success include March Brown, Zulu, Wo[illegible] and Yellow, Hares Ear, Blue Upright, Red Spinner, Butcher, and Brown Killer, No. 12 hook.

The Mooi River is considered the most easily fished river in Natal, having low banks, while as already stated the absence of obstacles in the shape of reeds and trees leaves nothing to be desired as regards casting. Over and above the fishing, the scenery is magnificent, for the Kamberg and other mountains are in the immediate foreground with the noble "Giant's Castle" peaks always in view and within one day's riding distance. The district is one of the healthiest in Natal, being 5,000 feet above sea level.

There are several Bushmen's caves adjacent to the river, the paintings in which are in a fine state of preservation.

For the convenience of visitors and anglers, Mr. H. L. Singleton, of Nottingham Road Hotel, has erected a bungalow at the river side. Here accommodation, catering, and attendance on similar lines to that of a good hotel can be obtained. Terms are 15/- per day, which include rod, with special terms to sportsmen staying over a week.

It can be so arranged that each fishing party of three or more shall have a stretch allowed to themselves.

No artificial bait is allowed, except on certain portions of the river, which sections will be marked out with sign-posts bearing the letter "M."

No coloured people are allowed to fish.

Sportsmen are requested to put back into the river any fish caught whose length does not exceed 10 inches.

Conveyance to the Bungalow from Nottingham Road (about 2½ hours drive) can be arranged at the hotel, charges being: Seat in trap 15/-; same charge being made on returning; if more than one rod a charge of 10/6 each person, or use of saddle horse 10/6; same charge on returning.

Fishers desirous of having the use of ponies whilst fishing can do so at the rate of 5/- per day. Also Gillies (natives) at 2/- per day.

A supply of suitable fishing tackle can always be obtained at the Bungalow.

All trains from the Transvaal and Orange Free State stop at Nottingham Road station by intimation from the passengers, and the Corridor trains stop at that station from October to March (inclusive) to pick up and set down Durban and Maritzburg passengers.

UMGENI RIVER—DARGLE.—The Umgeni River was stocked in 1890. The trout in this river have increased so rapidly that there is scarcely sufficient food for them. For some years excellent sport has been obtained and the fish have averaged from ½ to 3-lbs., though a considerable percentage are much heavier. There are about six miles of fishing available on one bank and three on the other.

The river is about nine miles from Dargle station, but conveyances are available and may be obtained at the Dargle Hotel as per following scale of charges:—

Trout Fishing in the Mooi River

1 and 2.—Below the Falls *3 and 4.—The Gorge Rocks*



"The Gorge"

DARGLE HOTEL.—Conveyances meet trains by appointment only. Tariff 8/6 per day, £8 10s. per month.

The hotel is distant one mile from the Umgeni River, in which splendid trout fishing is to be had.

Horses and conveyances may be hired from the hotel at the following prices:—

Per single fare 5/-
Two or more fares 2/6 each fare

The above charges are for conveying anglers to the river and back in the evening.

Native boys to carry lunch baskets, etc., are supplied at the rate of 1/6 a day.

Particulars as to fishing licences may be obtained from the proprietor of the Dargle Hotel. No tackle is stocked, but all orders may be placed with the proprietor, who will have them promptly executed.

CLOSE SEASON.—The period between the 1st May and the 31st July in each year has been proclaimed to be a close season for trout fishing in the Bushman's River or in any tributary thereof, and the period between 1st May and the 31st August in each year to be a close season for trout fishing in the Umgeni and Mooi Rivers or any of their tributaries.

THE FLY.—For the Natal rivers the best size of hook is No. 12 and the flies used with most success are March Brown, male and female, Zulu, Woodcock and Yellow, Hares Ear, Blue Upright, Red Spinner, Butcher and Brown Killer.

NATAL ANGLERS' ASSOCIATION.—The Natal Anglers' Association was formed in the year 1901, a time when trout fishing was practically unknown in the province, and it may be claimed for the Association that, during the past nine years, it has been the means of disseminating information which has resulted in the provision of excellent sport for residents of the province, as well as giving trout fishers from other parts of South Africa and the Homeland an opportunity of enjoying their favourite pastime.

WHAT HAS BEEN DONE IN NATAL FOR THE FLY-FISHERMAN.—It will be interesting to South African anglers to learn the dates on which certain of the Natal rivers have been stocked with trout.

1899.

STREAMS STOCKED WITH TROUT FROM HATCHERY AT TETWORTH.

	Brown Trout.
Lower Umgeni, below junction with Karkloof	500
One caught the following season.	
Karkloof and Yarrow	427
One of these grew to be 14 inches long.	
Lion's River (Lidgetton)	500
One caught nine inches long next year.	
Little Bushman's River	
No report.	
C. B. Lloyd—pond	100
Mooi River—Game Pass	400
These are the parent fish of the trout in the river at the present time. It has been said that the Mooi River is the best trout stream in South Africa. It is estimated that the value of the fishing to the district is not less than £300 per annum at the present time.	
Tetworth	50
These seem to have given place to the rainbow trout.	

1900.

BROWN TROUT RECEIVED FROM CAPE PROVINCE, APPLIED FOR BY J. H. MORTON, ESQ. FRY DISTRIBUTED.

J. J. Morton, Karkloof	1,000
G. McKenzie, tributary Umgeni	200
J. Trotter, Yarrow	500
A. S. Parkinson, Shafton	250
Tetworth	250
W. Trafford, Little Mooi River	200
Government Ponds	50

Out of this lot only those taken to Little Mooi River did any good. One caught in 1906 weighed 6-lbs. This year (1909), one weighing 7-lbs. 5-ozs. was landed.

1901.

	Rainbow Trout.
Umvoti River, near its source	700
None of these ever seen again.	
Umsindusi, Edendale	400
Seen the following season.	
Ipolela	530
Reported doing well for two years, then they disappeared.	
Tetworth	40
One of these trout was killed on March 10th, 1903, 16½ inches long, girth 9 in., weight 1-lb. 12-oz. The progeny of this fish are to be found in the stream at the present time. They breed freely, but none are ever found below Tetworth in the Karkloof.	

1902.

RAINBOW TROUT FROM CAPE PROVINCE.

Camperdown Reservoir	1,000
None of these were ever seen again.	
Eland River, Boston	500
None of these were ever seen again.	
Ladysmith Reservoir	—
None of these were ever seen again.	
Mooi River, Hlatikulu Branch	350
One of these was caught, weight 2-lbs., and returned to the river. Reported by Mr. Russell to be in the river in 1907.	

1903.

During the year no streams were stocked. First attempt made to rear Natal bred ova.

1904.

RAINBOW TROUT FROM CAPETOWN.

Stocked Umkomaas above Impendhle	500
Insinga, tributary to Umkomaas	250
Tugela, at Bergville	300
Lembonjwa	250
M'Weni	250
Incandu and Ingogo	900
Ixopo	250
Illovo	200
Little Umkomaas	200
†Shelter Spruit, Howick	65
†Hutchinson, Balgowan	200
Lower Umgeni, 10 miles below Howick	200
Umlaas, above Nel's Rust	200
†Tributary, Impolweni	102
†G. Simon's dam, Karkloof	50
‡Lower Umvoti, Kearsney	655
†‡P. D. Simmon's dam	175
‡Yarrow	50
‡Umgeni, three miles above Howick	131

† These did well. ‡ Tetworth Ova.

1905

†Tributary, Lion's River, Newstead	...		200
†Dundee Reservoir		—	212

These grew to be fine fish. Stocked in 1905

Sunday's River		—	340

No report.

Wilge River, near Harrismith, O.F.S.	...	...	830
Lower Umkomaas (Major Silburn)	...	...	566

Most of these died in journey.

T. Mackenzie, Lower Umgeni ...	...	...	200

Dam burst, fish escaped.

Elands River, Inewadi Station ...	...	...	200

No report.

†Little Tugela, Gourton Bridge ...	...	...	(Brown)	330

† These did well. Above, all Tersooth ova.

1906.

Flood. Stock ponds 18 inches under water. All the Rainbow trout escaped.

			Brown Trout.
Stocked Umsindusi, Taylor's station ...	...	...	150

These did well.

Inkonka, Dronk Vlei ...	...	...	160

No report.

1907.

CAPE OVA.

		Brown Trout.			
†Yarrow	200		Ipolela (Richmond) ...	400
†Newstead	102		†Larana	200
Umvoti (Blackwatar) ...	600		Incandu	420
J. J. Morton	100		Ingogo	620
Pivaan	100		Kearsney	410
Dundee Reservoir	240		Umlaas Reservoir	400
Tugela, Lembonjwa ...	250		Umsindusi	450
M'weni	250		Impolweni	150
Little Tugela, Winterton...	190		Rooi Spruit	100

† These did well.

NOTES.—With the exception of the Umgeni, Mooi, and Bushman's rivers there is no definite information with regard to the success, or otherwise, of the stocking of these rivers. There is, however, no doubt that the three rivers named carry an abundance of fish, and it may be stated without fear of contradiction that the Mooi River affords better sport than any river in the Province, and in few rivers in the British Isles can better sport be obtained.

The lands abutting on the Mooi River are held by private owners and certain of these owners have leased their fishing rights to Mr. Singleton, of Nottingham Road. Mr. Singleton, of course, makes a charge for fishing in these waters, but he has entered thoroughly into his work, and provides comfort and good sport for his patrons.

The lands on the Umgeni River are also held by private owners, and the Association has up till now leased their fishing rights over two farms on the Umgeni, and it is being considered as to whether leases should not be terminated, and so give an opportunity to the owners of these rivers to undertake the management and the fishing on the rivers.

The Natal Anglers' Association has the right of fishing over all waters flowing through Location lands for a nominal rental. These rivers include the Bushman's and Umsindusi.

There is excellent fishing on the Bushman's River, and there is every reason to believe that there is trout in the Umsindusi, which is near to Pietermaritzburg and easy of access.

The Secretary of the Natal Anglers' Association is Mr. J. L. Watson, Pietermaritzburg, who will gladly furnish particulars regarding the Association to any one interested in its work.



"The Home of the Trout"

Stations.	Rivers.	Fishing Mileage.	Distance of River from Station.	Distance of Hotel from Station.	Hotel Accommodation.	Nature of Fish.	Class of Bait.	Facilities available such as rod, tackle or other conveniences.	Best Season	Weight of Catches	Where to apply for permission to fish.	Distance of water from Hotel.
DARGLE ROAD	Umgeni ...	6 miles one side 3 the other	11 miles...	9 miles ...	Dargle Hotel, trains met by appointment ; tariff : £2 2s. ₱ week, £8 10s. ₱ month ; conveyances to river for one person 5s., two or more 2s. 6d. each.	Trout ...	All information may be obtained from Hotel Proprietor.	No [illegible] stocked.		Fish very plentiful—catches up to 9 lbs. each fish.	[illegible] Licenses [illegible] Hotel Proprietor]	Close [illegible]
BALGOWAN ...	Jackson's Spt. Methley s Spt.	... ...	Curry's Post district ab't 4 miles.	... ...	Mrs. Jaffray ... " " ..	Rainbow Trout	... .	None		Fish up to 2½ lbs. Good baskets daily	A. F. Logie and Partner	
NOTTINGHAM ROAD	Mooi River ...	Upper Reaches 40 miles	2½ hours' drive	Close ...	Nottingham Rd. Hotel, and bungalows for the accommodation of anglers	Trout ...	Good Flies, the Butcher, March Brown, Yellow Body, Brown Killer, Coachman and Woodcock, & Hares Ear are sometimes used with success.	Conveyance to river bungs 1 person 15s each way, 2 or more 10/6 each way.	Sept. to April.	Fish up to 4 lbs. Occasional fish up to 7 lbs. Fair quantity.	C. H. Hiscutt C. J. Cooke. S. T. Nixon. W. Methley H. Stephen	12 miles driving.
ROSETTA ...	Mooi River ...	... ..	¼ mile ...	Close ...	Ample	Trout and Scale fish	... .	.	— —	Fair sport		Close
ESTCOURT ...	Bushman s ...	.. ...	20 miles...	... ...	Store at Ulundi Drift (Railway & Plough Hotels, Estcourt).	Trout ...	March Brown, Butcher, Zulu and Coachman		Sept. to April.	Average 3 lbs. Occasional fish 4 lbs.	Mr. Forbes, Estcourt, Proprietor Arundale	
WINTERTON .	Little Tugela..	... ...	1 minute..	2 miles ...	Springfield Bdge Hotel. 10s. day.	Trout, yellow and scale fish.	..		Jan. to April	Large fish be...		Close
	Sterk Spruit...	... ...	2 miles ...	... ..	. ... ..		.					2 miles.
	Lembonjwa ...	... ...	14 miles...	... ...	... ...	"	.					14 miles
	Bergville ..	... ..	16 miles...	16 miles...	Hotel	"	.					18 miles

Streams stocked with Trout include Ingogo, Incandu, Umkomaas, Ixopo, Polela, Inkonca, Lieuni, Pramin (Vi[illegible] Dairy) and Lone Tree.



On the Banks of the Tugela



AGRICULTURE

CHAPTER XVII



THE Province of Natal is often spoken of as the "Garden Colony" of South Africa. The semi-tropical nature of its climate, and the consequent luxuriant vegetation which attracts the attention of the traveller *en route* to the Rand, has gained for Natal this favourable appellation.

Although the climate of Natal may be regarded as semi-tropical, its summer heat is tempered by copious rains, which cool the air and tend to make the evenings mild and refreshing. The winter season is dry, and the air consequently exhilarating and bracing. For three or four months practically no rain falls, and day by day a continuously unclouded sky diffuses unlimited sunshine all round. The climate, in short, is one to which people from the British Isles can safely come without any injurious results as far as health is concerned. There are practically only two seasons, the wet and the dry; spring and autumn being of such short duration as to be scarcely observable. The wet, or summer, season lasts from about October to March, and the dry, or winter, season from about April to September. Frosts are experienced during June and July; snowstorms are so rare as to be the subject of special excitement when experienced; but occasionally during the summer hailstorms do enormous damage. Fortunately these also are of comparatively rare occurrence, and are generally very local in their action, though this is not of much consolation to the unfortunate farmer whose farm happens to lie in the path of the storm. One farmer who lives in a district subject to hailstorms states that, on the average, once in six years his crops are damaged, but that he reckons the five good years fully compensate for the one bad occasionally experienced.

THE THREE TERRACES.—The Province of Natal consists of three belts or terraces, varying in climate and soil and consequently in natural productions. In order to convey to the reader some idea of what this means from an agricultural point of view, a rapid survey may be made of the farming as carried on in each of the three natural belts.

The Coast Belt, which stretches from the Umtamvuna to the Tugela Rivers and extends inland from ten to thirty miles from the ocean, is suitable for the cultivation of sugar, tea, maize, tropical fruits (bananas, pine-apples, citrus fruits and mangoes being chiefly grown), sweet potatoes, wattle bark, tobacco, fibres of various kinds (including cotton), cayenne pepper, arrowroot, chicory, indigo, and, among other crops, beans, earth nuts (ground or pea-nuts), kaffir-corn, pumpkins, sunflower, etc., also do well. Coffee does fairly well in some parts of the coast, but its cultivation is not extensive.

The average yield per acre of these crops is as follows:—Sugar, 17 tons; tea, 660 lbs.; maize, 18 bushels; potatoes, 36 muids (of 150 lbs.); wattle bark, 4·5 tons; tobacco, 2,000 lbs.; beans, 3·5 muids (of 200 lbs.); kaffir-corn, 5·5 muids (of 200 lbs.); pumpkins, 2 tons; sunflower, 6 muids (of 200 lbs.); sweet potatoes, 40 muids (of 150 lbs.).

The principal agricultural industries of the Coast Belt—and, with the cultivation of maize and wattle bark, of the Province—are the production of sugar and tea. There are between 40,000 and 50,000 acres under sugar cane, and the annual production is about 24,000 short tons of sugar and 2,800,000 lbs. of molasses, while quantities of rum and methylated spirits are also turned out. There are over 4,000 acres under tea, and the production is about a million and a half pounds weight. Natal sugar and tea are sold extensively to the other Provinces and States of South Africa, and an oversea trade is commencing, *i.e.*, with England.

Another industry of importance on the coast is fruit culture. An export on a large scale of oranges and naartjes (tangerines) is being attempted; and there seems to be every prospect of success in this direction.

A crop that promises to become a source of considerable wealth to the Province is maize. As described later, the Government cleared the way in 1907 for the export to England of Natal's surplus supply of maize—with such good effect that the following season fifteen per cent. more land was put under cultivation. In all parts of the Province this crop grows well, although the harvest naturally varies, not only with individual farmers, but also according to district, climate, etc. On the Coast Belt, as has been stated, the average yield per acre is about 18 bushels, and in some parts 30 and 45 bushels per acre are obtained. On the Midland Belt it varies from about 12 to 21 bushels, the average for the whole belt being about 16 bushels, and on the Upland Belt the yield is from 12 to 18 bushels. Cattle bred on the coast thrive well there, but the climate is unsuitable for sheep farming.

Indentured Indians form the chief labour supply on the coast for agricultural purposes (they are also used to a certain extent in other parts of the Province, especially in the wattle bark industry). They are used almost exclusively on the tea and sugar estates. The wages paid to indentured Indians are 10/- to 15/- a month to males and 5/- to 7/6 to females, whilst free Indians (*i.e.*, whose term of indenture has expired and who elect to remain in the country in preference to going back to India) are paid at the rate of from £1 to £2 a month. The average wage paid to Native farm labourers on the Coast Belt is about 20/- a month to men and 7/6 to women.

The general character of the country may be described as hilly. The rivers and streams, which are abundant, seek their way to the ocean in channels cut deep into the soil, and are not, consequently, easily available for irrigation purposes.

The freehold value of land on the Coast Belt is from 15/- to £10 an acre, according to quality of soil and proximity to a reliable market or railway line.

The bulk of the farms in this belt are from 200 to 1,000 acres in extent, though there are a few of holdings under 50 acres. The proportion of farms of each of nine groups of sizes runs as follows:—From 1 to 50 acres in area, 17·5 per cent.; from 51 to 100 acres,

7·2 per cent. ; from 101 to 200 acres, 11·1 per cent. ; from 201 to 500 acres, 20·6 per cent ; from 501 to 1,000 acres, 20·2 per cent. ; from 1,001 to 2,000 acres, 11·8 per cent ; from 2,001 to 3,000 acres, 5·3 per cent. ; from 3,001 to 4,000 acres, 2·3 per cent. ; and above 4,000 acres, 4 per cent.

At Durban—which is the centre of the belt—the average temperature is about 70 degrees Fahrenheit, varying from about 86 degrees in January (the middle of summer) to 53 degrees in July (the middle of winter). The annual rainfall is about 42 inches, of which—as in all parts of the Province—the greater portion falls in the summer months.

The Midland Belt. — The Midland Plateau, which includes the magisterial divisions of Impendhle, Alfred, Ixopo, Richmond, Umgeni, New Hanover, Lion's River, Umvoti, and Krantzkop, is devoted to a great extent to the rearing of cattle, sheep, and horses, and the cultivation of maize and other crops such as barley, millet, oats, beans, kaffir-corn, potatoes, turnips, and other root crops, wattles, etc.

The wattle bark industry—one of the most important industries connected with agriculture in the Province—flourishes in this belt, the output comprising about nine-tenths of the production of the whole Province. The bark is exported almost entirely to Europe, where it is used for tanning purposes.

The average yield per acre of the principal crops grown in this belt runs somewhat as follows :—Barley, 7·3 muids (of 200 lbs.) of grain and 3 tons of forage ; beans, 3·3 muids (of 200 lbs.) ; kaffir-corn, 2 muids (of 200 lbs.) ; maize, 16 bushels ; millet, 5·2 muids (of 200 lbs.) of grain and 2 tons of forage ; peas, 3·4 muids (of 200 lbs.) ; potatoes, 29·4 muids (of 150 lbs.) ; sweet potatoes, 31 muids (of 150 lbs.) ; tobacco, 600 lbs. ; turnips, 9·8 tons ; wattle bark, 4·8 tons ; pumpkin, 2·3 tons.

Tobacco culture promises to be an important industry in some parts of this belt, and the same may be said of the Upland Belt.

Stock farms generally vary in extent from 1,500 acres to 8,000 acres and more. An average area of 4½ acres is needed for each head of cattle, and 1¼ acres for each sheep, that is, provided provision is not made for artifical feeding during the winter months.

The areas of farms of various sizes in this belt are in the following proportions.



Royal Agricultural Society's Show Grounds, Pietermaritzburg



A Natal Farm in the Midlands

From 1 to 50 acres in extent, 2·4 per cent.; 51 to 100 acres, 3·3 per cent.; 101 to 200 acres, 5·7 per cent.; 201 to 500 acres, 15·7 per cent.; 501 to 1,000 acres, 20·7 per cent.; 1,001 to 2,000 acres, 26·3 per cent.; 2,001 to 3,000 acres, 12·6 per cent.; 3,001 to 4,000 acres, 6·4 per cent; above 4,000 acres 6·9 per cent. Agricultural farms situated in the neighbourhood of Pietermaritzburg and Durban, or within easy reach of a line of railway, if farmed by Europeans, vary from 200 to 600 acres.

The freehold value of land, if acquired from private owners, is from 15s. per acre to £3 per acre.

The Midlands may be said to consist of broken and hilly districts, wooded on the southern slopes of the hills, and of rolling grassy downs. Water is abundant, but, as on the coast the rivers have a rapid flow from their sources in the lofty regions of the Drakensberg, and consequently have cut for themselves deep channels.

The maximum temperature is about 96 degrees Fahrenheit, and the minimum about 35 degrees. The average rainfall is about 33 inches per annum. Rain falls most abundantly in the months of October, December, January, and March.

The Upland Belt comprises the magisterial divisions of Underberg, Polela, Upper Tugela, Estcourt, Weenen, Klip River, Umsinga, Dundee, Newcastle, Vryheid, Utrecht, Paulpietersberg, Babanango, and Ngotshe, consisting, in fact, of the remainder of the Province exclusive of Zululand.

The climate here is colder than on the other belts, and the yield of the crops consequently varies. The farms in this belt also carry large numbers of live stock, all classes of which do well. The crops grown are much the same as those produced on the Midland Belt. The average yield per acre of the principal crops is as follows:—Barley, 5·2 muids of grain and 2·3 tons of forage; beans, 3·7 muids; buckwheat, 4 muids (of 200 lbs.); kaffir-corn, 5 muids; maize, 15 bushels; millet, 5·8 muids of grain and 2·5 tons of forage; oats, 7·8 muids of grain and 1·6 tons of forage; peas, 4·9 muids; potatoes, 27·9 muids; pumpkins, 2·9 tons; sunflower, 5·2 muids; sweet potatoes, 22·5 muids; tobacco, 500 lbs.; wheat, 4·3 muids (of 200 lbs.) of grain.

The areas of the farms in this belt are in the following proportions:—From 1 to 50 acres in extent, 1·9 per cent.; 51 to 100 acres, 1·4 per cent.; 101 to 200 acres, 1·5 per cent.; 201 to 500 acres, 5·7 per cent.; 501 to 1,000 acres, 13·4 per cent.; 1,001 to 2,000 acres, 36·5 per cent.; 2001 to 3,000 acres, 19 per cent.; 3,001 to 4,000 acres, 9·9 per cent.; over 4,000 acres, 10·7 per cent.

A glance might now be given to some of the more important industries connected with the land, and

in making this survey we shall have to pass successively in review the tea, sugar, tobacco, wattle bark, maize, fruit, sheep and wool, cattle and dairying, horse, angora goat and mohair, pig, ostrich, poultry and bee industries.



1 and 2.—Haymaking

TEA CULTURE.—From causes well known to the oldest residents, the coffee industry of Natal, which, until the years 1877-78, was in a most flourishing condition, suddenly failed, and it became necessary for those who had capital invested in that enterprise to look out for some other means of livelihood. It then occurred to Mr. (now Sir) J. Liege Hulett, who was at that time chairman of the Lower Tugela Planters' Association, that, as the tea plant, though of inferior "jat", flourished in several parts of Victoria County (and in no instance had there been any failure of its growth), it was only a question of the introduction of the proper class of plant to establish a new industry. The matter was brought before the Lower Tugela Planters' Association, and the late Mr. James Brickhill, of Umbilo, having kindly offered his own services and those of a friend in Calcutta to obtain seed, and have it attended to on the way over, the Government was approached to render some assistance. They acceded, and provided freight from India to Durban in the chartered steamer *Umvoti*. A



A Tea Plantation on the Coast

small syndicate was formed to defray the cost, and the seed upon arrival was divided *pro rata* according to the amount invested by each member, the largest falling to the proprietor of the now well-known Kearsney Estates (Sir J. L. Hulett). The seed left Calcutta about the beginning of January, 1877, was landed from the *Umvoti* about the 13th of March of the same year, and planted out in nurseries as soon as it arrived. The varieties introduced were Assam Indigenous, from the Rookang Estate, and Assam Hybrid, from the Longeebur Estate, both of the Assam Tea Company.

Time has proved that the most suitable variety in Natal is the Assam Indigenous, on account of its superiority as a leaf producer, and the quality of the manufactured article. Unfortunately, about the same time as these varieties were planted out, the district was visited by a severe drought, the consequence being that the greater portion of the seedlings were destroyed, only 1,200 plants surviving out of the 4,000 which were successfully raised from the imported seeds. The seriousness of this loss can be better appreciated when it is borne in mind that the surviving plants had to attain the age of three to four years before any mature seed could be obtained from them. It was, therefore, not until the year 1880 that the first seed was gathered from these trees, and then there was only enough with which to plant five acres. As a consequence, no serious attempt to extend the cultivation was made until the year 1881, when again great difficulties had to be overcome, drought and insect pests destroying a large percentage of the young plants. It was indeed not without many discouragements that the tea plant ultimately became established in Natal, and able to increase from the first 1,200 plants (a little over half an acre)—which, by the way, are still to be seen in a healthy and vigorous condition, some of them having reached a surface diameter of 12 feet—to the large area under cultivation now covering some 4,000 acres.

The soil most suitable to the successful cultivation of tea is a sandy loam, with a sandstone formation. Open grass land also gives good results, provided it is of a sandy nature and without a clay or shale sub-soil. Red chocolate soil, if not too heavy, is often found to yield excellent results, though the tea plant takes longer to establish itself, but, when established, will often give heavier crops than on the first-mentioned class of soil. Tea plants can be grown in almost any part of Natal—but this fact should not be taken as an indication that it can be grown to pay in any part. Climate and altitude are important factors, and unless these are suitable the leaf production will be restricted, thus making all



Inverugie Tea Estate

the difference between profit and loss. A fairly reliable test as to the suitability of soil is to ascertain first the best soil for sugar-growing, and then to avoid it for tea, for, as a rule, tea will not thrive in the same one as sugar cane.

The tea plant comes of age in from four to five years, but plucking may be commenced at two and a half to three years. At this age it may be reckoned that it just pays its way, great care, however, having to be exercised that the plants are not overplucked when so young, as this would tend to dwarf for all time.

The tea plant, like everything else in nature, is not without its enemies ; though, as far as experience goes in Natal, it has but comparatively few. The principal disease found in the tea plant is what is commonly called "red spider," a minute insect which attaches itself to the leaf, giving the bush a red appearance. Though the death of the plant, rarely, if ever, follows the attack made upon it by this insect, all leaf production is instantly checked, and when a large area is infected a great loss is incurred. Mr. Claude Fuller, the Government entomologist (Natal Province), has suggested sulphur, and if the pest makes its appearance this remedy must be applied. The red spider usually appears about the middle of the plucking season, and lasts about three months. Heavy rains have been found to clear the tree of the blight.

The altitude best suited to tea is about 1,000 feet above sea level. It should not be inferred that it will not grow to pay at a lower level, but that being the altitude of the most successful tea gardens in Natal, it may be regarded as the most advantageous. The general features of the land at this altitude are usually of an undulating character, well-watered, with a climate sufficiently humid to encourage leaf production, whereas at a higher altitude humidity —which is essential—seems to be lacking. Weather plays an important part in the successful growth of the tea, plenty of heat and moisture are both necessary, and this state of climate is to be had on the coast of Natal. The average yield per acre of made tea in Natal is approximately 600 lbs., though when the land is very rich and conditions favourable as much as 1,200 lbs. may be obtained ; but this is exceptional. The importance of high cultivation cannot be too strongly urged, and it may be truly said of the tea bush, "the more you do for it the more it will do for you." It may be safely stated that the life of a tea planter is much more to be desired than that of most occupations, inasmuch as when once a tea garden is established it is there for all time. The risk from fire and flood is reduced to a minimum,

its greatest enemy being drought. The anxiety attendant on sugar-growing is non-existent—it being impossible to burn a tea plantation, and the locust swarm has no terrors for the tea planter.

Natal tea has a distinctive character of its own, and while it is not so pungent and harsh to the palate as Indian and Ceylon tea, for which reason it is considered by so-called experts to be of inferior quality, it is in reality a more wholesome tea to drink than either of the Indian teas mentioned, containing as it does a much lower percentage (as much as 7½ per cent. less) of tannic acid, and being richer in caffein, which is the stimulating principle of tea and coffee, whilst tannin is the most unwholesome.

Natal is capable of producing every ounce of tea consumed in South Africa, as the following figures will prove :—There are at present under cultivation approximately 4,000 acres of tea, and the total output for the Province is 2,000,000 lbs. The quantity of tea imported into Natal during the year 1910 was 1,793,112 lbs., and the total imports into the whole of the South Africa Union were 5,006,405 lbs., thus showing that Natal does not produce more than 40 per cent. of the total requirements of South Africa. To emphasise the capabilities of the Province in respect of tea growing, it need only be mentioned that the area of the great tea-growing county (Victoria County) is 1,290 square miles, and that the magisterial divisions of Alexandra (on the South Coast) and Eshowe (Zululand) comprise an area of 779 and 690 square miles respectively, making a total of 2,759 square miles. Of course it should not be inferred from this that all this land is suitable for tea growing; but what is intended to point out is that a belt of tea land extends right through the areas mentioned. Sufficient land to supply all the tea consumed in South Africa at the present time can be found in the Lower Tugela Division (Victoria County), but unfortunately most of it is in the hands of absentee landlords.



THE SUGAR INDUSTRY.—An industry which is capable of putting on the market something like £500,000 worth of produce annually, which maintains in active work 34 mills, having a total capital of over £1,000,000, and employing over 8,000 persons, which keeps under cultivation 50,000 acres of land, and which has at its doors a market of the value of approximately £1,250,000, must be regarded as an important one. Such is the Natal sugar industry, which from very small beginnings 60 years ago has grown to be one of the principal rural industries of South Africa.

Sugar cane appears to have been grown in Natal before the advent of the white man. In the early days a variety of sugar cane was found to be grown in small quantities about the kraals of the chiefs, the Zulus calling it "Umoba." It is believed by some that the early European settlers brought this cane into industrial cultivation, the variety now known as "Green Natal" being considered to be its lineal descendant. This view is countenanced by Mr. Medley Wood, who states that the native "Umoba" was cultivated by Morewood in 1852, and that he has been unable to trace any other origin for "Green Natal." On the other



A Sugar Mill at Port Shepstone

hand, Mr. Wm. Campbell, writing in "Davis' Almanac" of 1874, suggested the possibility of another variety having descended from the indigenous cane. "China cane," he wrote, "is now universally used in land that will not bear other cane well. Whether it is the real China cane is a moot point. Some say it was in the country many years ago, long before cane planting was thought of." Be this as it may, the first recorded attempt of the European in Natal to grow sugar cane for industrial purposes was in the early days of settlement.

The early machine was primitive—the first rollers were of wood—Morewood's having been made out of a ship's mast; but iron rollers worked by oxen were early introduced, and these in their turn were soon superseded by steam-driven machinery. In George Russell's "History of Old Durban," written in 1856, it is stated that H. Milner and J. B. Miller (of the Redcliffe Estate) in the year 1855, "started new machinery to demonstrate the conversion of cane juice into sugar by steam. The machinery was small, but its introduction was regarded as a notable event in the history of the young colony. The report of the day ran as follows:—"The beautiful little steam engine (the first introduced into Natal) and the wonder-working centrifugal machine displayed their powers to perfection and excited the delighted surprise of all present. A quantity of thick dark-coloured syrup was poured into the inner perforated cylinder of the centrifugal, and in exactly four minutes after the revolutions commenced (of which there were 1,700 every minute) the syrup was converted into a beautiful sample of bright dry yellow crystallised sugar equal to the finest qualities imported from Mauritius. In seven minutes the same syrup was converted into sugar of still finer quality, almost white and far superior to the imported article. Several quantities were sold, the price averaging 30s. per cwt."

It can be well imagined that difficulties innumerable arose from want of knowledge of the technicalities of the industry. The planters at first knew little about the cultivation of the cane, and practically nothing about the processes of sugar extraction. But notwithstanding these many obstacles, the industry, owing to inherent fitness, grew steadily until it attained such dimensions that it reached the limits of available labour, and was prevented from further expansion, and even threatened with extinction, from the want of hands to keep it going. To a new arrival it must always seem remarkable that, with a teeming black population exceeding the whites ten-fold, a labour difficulty should exist in this country. But so it is, and has been for years. The aboriginal is not a worker, his ancestors have been fighters for generations, and he has not inherited the instincts of labour. He is able-bodied, hardy and enduring, and in many directions teachable, but he wearies of sustained exertion, and nothing but compulsion, physical or moral, would cause his race to devote itself to steady work. The Kaffir works by fits and starts, but the sugar industry requires reliable labour. To meet this requirement the Government in 1859 legalised the importation of indentured coolies from India, and the first shipment arrived in 1860. By the year 1866, 5,600 Indians, men and women, had been introduced.







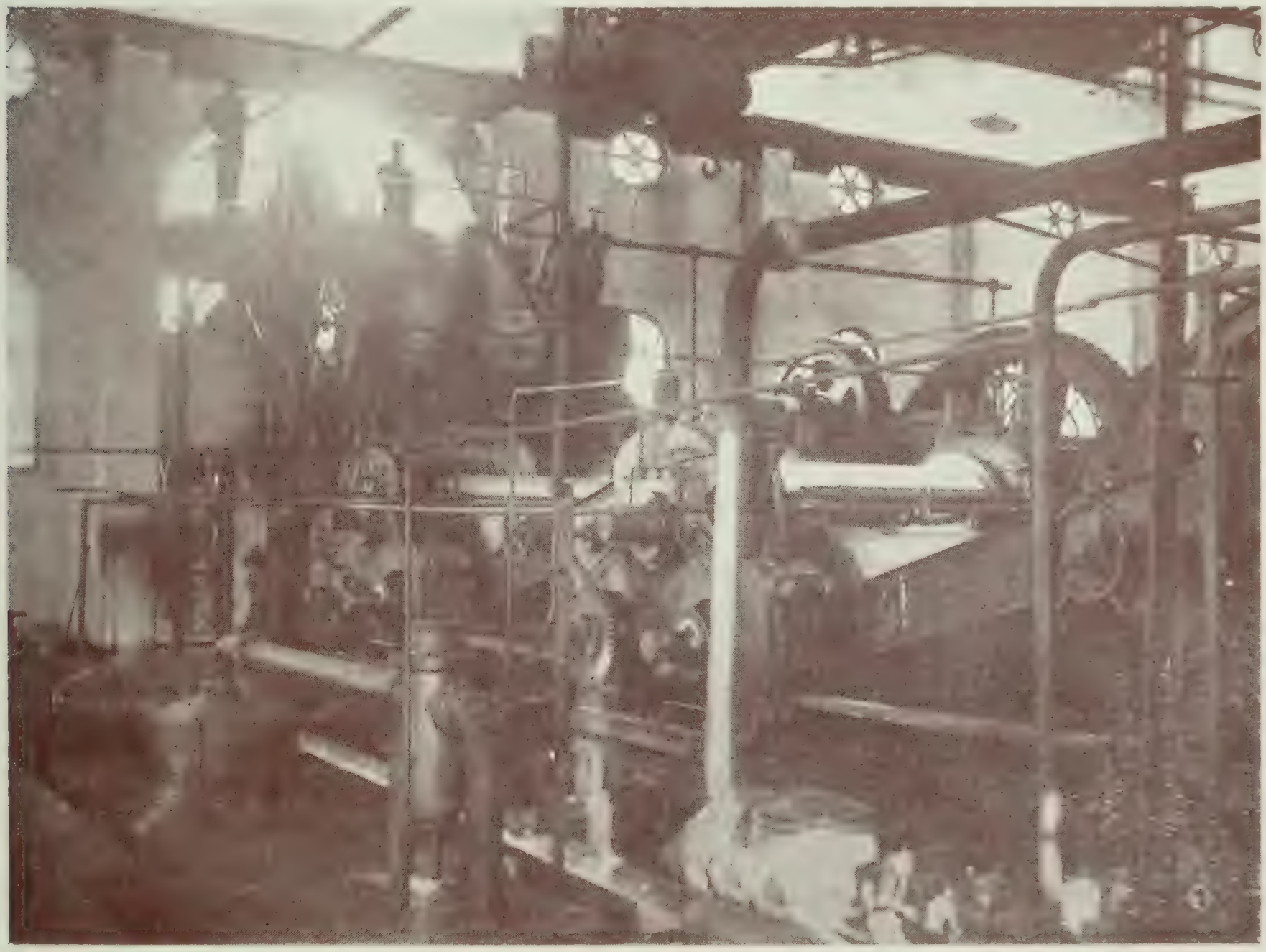
Views at a Sugar Mill

1, 2 and 3.—Views of the Mechanical Hauling arrangements, showing the cane being fed into the Mill
4.—Trucks of Cane from the fields

The Indian question has been and still is one of prime importance to the Province. Its prominence is shewn by the fact that since 1859 no less than thirty-three laws relating to it have been passed by the Legislature. The indentured coolie is a valuable and steady labourer, intelligent, industrious, and generally to be trusted in his work. But the free Indian seldom works as an agricultural labourer for the white man, though he offers himself in limited numbers for higher classes of work. Generally he acquires land for himself, principally in the coast belt, where he now cultivates 44 per cent. of the total acreage under crop. The Indians have multiplied exceedingly since their first introduction, and now number 116,679, as compared with 91,443 Europeans. In fact they now equal in number the estimated native population at the founding of the colony. Whether the free Indian will in time to come become an important source of agricultural labour for the European is a moot question.

According to the Statistical Year Book for 1908 there was under crop in that year 52,187 acres of cane, of which 14,627 acres were cut. The quantity of sugar extracted was 35,832 short tons, and 3,835,090 lbs. of molasses, treacle, etc., were obtained.

The further expansion of the industry will depend on the increase of area under cane—an increase which is now taking place with the opening up of Zululand—but also on the increase of yield per acre, the shortening of the period of the growth of the crops, the increase of the sugar contents of the cane, and on the complete extraction of the sugar. The increase of the yield, the shortening of the period of growth, and the increase of the sugar contents are matters for experimental investigation and systematic selection of canes. The more complete extraction of sugar from the cane will result from the increasing use of large central factories, and also from the introduction of the chemist. At present, except for



INTERIOR OF A SUGAR MILL

This picture shows the end of the mechanical hauling device depicted in the preceding plate. The cane is fed through the opening in the wall on the left, and thence passes through heavy rollers, where it is crushed and the juice extracted

the refinery, the chemist is ignored by the Natal sugar industry, but the results obtained in Australia, Hawaai, the United States, and in other countries where the chemist is systematically employed, are being watched in Natal, and it is not unlikely that before long the sugar chemist will play an important part in Natal mills.



View of a Tobacco Plantation

THE TOBACCO INDUSTRY.—The growing of tobacco has been entered upon, with profit, by colonists in various portions of Natal, and in 1909 there were 642 acres planted with this crop, giving a return of 277,012 lbs. of tobacco.

There is a considerable local demand for tobacco, cigars and cigarettes, the bulk of which is at present met by importation. The locally-produced article is, however, coming more and more into favour in South Africa, and, provided the quality is maintained at a high standard, finds ready sale. It is difficult to render any general advice to settlers, as so much depends upon the locality where the tobacco is to be grown. The conditions of each locality vary so much that nothing but personal experience will teach the best methods of cultivation for the particular locality ; in all tobacco grown of the finer kinds, experience is what is required more than theory. Many parts of the Province are adapted to the growth of the finer qualities of tobacco for cigar making, but careful judgment must, of course, be exercised in regard to soil, and especially to the proper chemical properties of the manures used on the soil in question. The finer and more delicate kinds of tobacco need especial care and watching. A grub attacks the more delicate leaves, and renders the culture of such tobacco very expensive. It is necessary to frequently go over the crop to destroy the grub, to prevent the grub destroying the crop. A coarser kind of tobacco—known as coolie tobacco, and grown for snuff-making for the natives—does not suffer to the same extent from the grub, and does not require any special drying or curing. For variety and quality, tobacco can, with proper facilities and expense, be produced in Natal equal to any other in the world; but such a tobacco can only be produced after a long practical experience of the local conditions necessary for success. Many drawbacks, such as climatic changes, etc., render it difficult to produce the quality required by the local market ; and careful personal supervision, especially where coolie or native labour is employed, must be exercised daily.



A glimpse of a Natal Wattle Plantation

THE BLACK WATTLE INDUSTRY.—Of all the industries in Natal, the culture of the black wattle (*Acacia mollissima*), strikes a visitor as most distinctively Natalian. The tree, which is a native of south-eastern Australia, has been for many years recognised as an important tan-bark producer. The Australian product from wild trees attracted attention here, and led to their experimental culture about 25 years ago, and from this an industry of first importance has sprung. It is unique as a forest industry in giving an early return, and also in yielding a high interest on the money invested in it. The whole process is so simple that no expert knowledge is required, machinery is hardly necessary, capital expenditure is very low indeed, and there is nothing in wattle-culture which could not be successfully undertaken by any farmer possessed of sound common sense. The following points are in its favour :—

1. Wherever it exists it is the only timber industry giving a full return within a few years, and keeping that up in perpetuity.

2. It is an industry in a foreign tree whose cultivation in its native land was neglected until the possibilities of the industry were demonstrated in Natal.

3. Though the industry is only 25 years old, wattle bark is one of the most important oversea exports Natal has, its value having now reached over £200,000 per annum, and rapidly increasing.

4. Among timber cultures it is the only one which yields a high rate of interest on capital invested, and that even without expert management.

5. It has given a high value to soils unsuited for ordinary cultivation, and has raised the general value of land in the wattle districts as much as if a town had sprung up in the neighbourhood.

6. It has made steady progress, and there is every prospect that it will continue to do so. At present there are 150,000 acres in Natal under black wattles, and the annual return of bark is over 24,000 tons.

In addition to the foregoing it supplies cargo for steamers on the home journey, while wattle firewood and mine props form an important item of both to the producer and to the railway revenue.

In order to show how this industry has grown, it may be stated that in 1886 £11 worth of bark was exported: in 1891 the exports were to the value of £5,588; in 1896, £16,450; in 1901, £69,850. The exports in 1910 amounted to over £200,000.

These figures show an enormous and well-maintained expansion, which, as recently extended acreage comes into bearing, must continue. Although the Cape Province, the



Wattle Bark Industry

1.—Weighing and loading up *2.—Arrival at Drying Shed* *3.—Drying the Bark*



IN A WATTLE PLANTATION



THE LAST STAGE IN A WATTLE PLANTATION

Stripping the bark from the poles. The loose piles with their axes and the other men for moving poles, firewood, etc.

Transvaal, the Australian colonies, California, South America, and the Mediterranean, may all in time come into competition, Natal has a combination of geographical, climatic, and economic conditions, together with an established reputation, which, for the European market, give her the first place. Meantime, Natal's quota to the total demand for tan-bark is insignificant, and does not suggest the probability of over-production for many years to come. Indeed, many English firms have not yet considered the black wattle bark to be of sufficiently regular quantity and supply to warrant their putting down plant to deal with it, and though most of the Natal bark is shipped *via* England, a very large proportion of it finds its way into the continental markets. The Cape Province still imports from Natal, and even Australia has been endeavouring to do so.

The first requirement in wattle culture is an ability to grasp local conditions, and adapt every detail of the work to meet them, the amount of variation possible in practice as well as in results being extraordinary.





1.—Loading up Wattle Bark for exportation *2.—Wattle Poles for mine props*



Steam ploughing is coming into vogue in Natal. The above illustrates the "direct traction" method

MAIZE.—"Mealie" is the usual South African name for maize. It is probably derived from the Portuguese word "milho" (meaning grain), under which it appears to have been introduced by the Portuguese into Africa and India. It is purely a local word, and should give place to the universal term—maize or mais. The latter is an Arawak name of South American origin, from mahiz, marisi, marika, etc. Columbus found the word "mahiz" in use in the island of Hayti, when he landed in 1492, and introduced it into Spain, whence it spread, with the grain, over the European continent, and has been adopted into most of the Latin and some of the Teutonic languages.

Maize is the king of agricultural crops. It is the staple crop of a large part of Natal, the Transvaal, Rhodesia, the Orange Free State (eastern districts), the Eastern Province of the Cape Province. The climatic conditions are all that could be desired for maize-growing in this part of South Africa. Its total yield of vegetable matter is larger per cent. than most other agricultural crops. It is one of the easiest crops to grow, standing more rough usage than perhaps any other. A favourite Kaffir method of planting the seed is to scatter it broadcast over the unbroken veld and then plough over the ground; even with this crude treatment he secures from one-and-a-half to two muids of grain per acre.

As a field for maize-growing the British provinces of South Africa take front rank, and for the farmer with energy and enterprise there awaits a rich reward in connection with this industry. A young, vigorous, and steadily (if slowly) increasing population provides an expanding food consumption, and the world's markets—owing to the magnificent lines of communication linking South Africa with the older countries—lie within easy striking distance.

The climate of a large part of South Africa is peculiarly well suited for the production of enormous quantities of maize of exceptionally good quality, especially for manufacturing purposes. The rainfall is ample if the soil is cultivated properly. The possible planting season lasts for at least three months, as compared with a maximum limit of 18 days in some of the maize-growing states of North America. Owing to the dryness of South African winters it is possible to continue harvesting and threshing in the field up till the very day when the planting of the new crop is started, *i.e.*, from May till September. In this respect South African growers have an enormous advantage over the American farmer, who has much damaged grain in consequence of unfavourable harvesting weather, and often has to provide artificial means to dry his crop, while the percentage of South African maize which is damaged by the weather is exceedingly small.

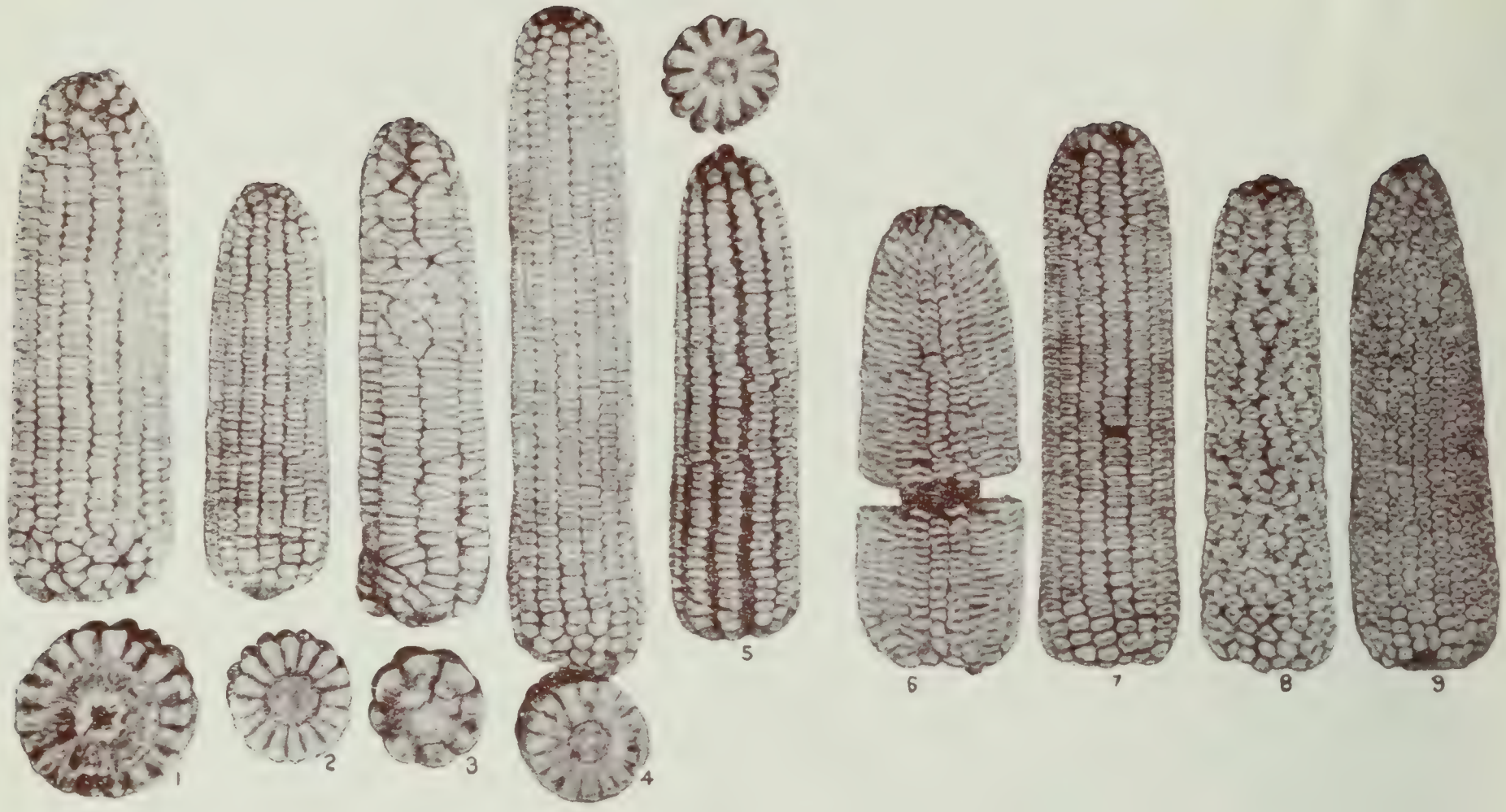


1.—A Disc-Plough at work 2.—Cleaning root crops 3.—Harvesting Maize
4.—Stacking Maize Stalks in the field



Variation in Types of Maize

Of the above kernels the left one of pair 8 is the most nearly perfect. It is sufficiently wide at the base to give room for a large germ, which means good germination and a healthy young plant, and at the same time the width at the top permits of no space between rows. The other member of this pair is inclined to bulge over-much at the middle although very good. The extreme rounding at the middle is particularly noticeable in No. 9. No. 11 has a weak germ and much lost space between rows near the cob. Nos. 6, 4 and 15 are so broad at the base that much space is lost between rows at the top. No. 3 is a very good kernel and is particularly deep, but to be perfect should be wider at the top. No. 16 is remarkable for depth, but is of the shoe-peg rather than the wedge type, and the spaces between rows would be very great. To secure the depth of No. 16 with the shape of No. 8 is the aim of every breeder. The defects of Nos. 5, 7, 10, 12, 13 and 14 are evident. (After U.S. Department of Agriculture Year Book.)



Variation in form of Ears of Maize

Nos. 4 and 7, good types of ear. No. 9, ear too tapering. No. 8, rows too irregular. No. 6, grain too loose and chaffy. No. 5, sulci too open. No. 1, bottom and top grains too irregular. No. 3, grains too irregular.

As a commodity for oversea export the cultivation of maize was, until the year 1907, not thoroughly appreciated; farmers remaining content to grow just enough for South African requirements, a policy which meant in a bad season abnormal prices and in a good one excessively low prices, while the industry was bringing no fresh money from oversea into the country.

Early in 1907, however, there was promise of a bumper crop, and the Governments accordingly took up the matter of arranging for an oversea export trade, and, from May onwards, maize was sent from up-country districts to the coast ports almost faster than accommodation could be found for it. There is now no need to fear that with the natural development of the industry the South African port authorities will not be able to keep pace with all requirements in the matter of providing increased shed space.

During the height of the season bags of yellow and white grain may be seen stacked in their tens of thousands, rows of railway trucks loaded with maize passing in and out of the numerous sheds discharging fresh consignments of grain for the great oversea markets which have been discovered, while the Government inspectors are kept daily employed from early morning till late at night in doing little else but testing the grain, grading it according to quality, and endorsing the necessary certificate.

With these conditions operating, it became increasingly clear that the time had arrived when the work of exporting maize should be undertaken on scientific lines, and in order to secure the success of the scheme the various South African Governments invited the co-operation and assistance of both merchants and farmers, the merchants to give their aid in dealing with the grain not only at the South African ports but also on the London and other markets, through the agencies and ramifications of their business connections; the farmers to help by increased cultivation and better production of the grain; and in response the Government to contribute their share by seeing that the quality of the exported grain is up to sample and facilitating the arrangements for transit both by land and sea.

The policy of co-operation has been fairly tested, and the maize export trade during past seasons has proved conclusively that South Africa is capable of producing far larger crops than have hitherto been raised; moreover it has now been demonstrated beyond doubt that South African maize can be produced at a price that will permit of profitable export, and this being proved it can be said to the maize-growers of the sub-continent: "You have now a limitless market," for the gratifying 1907-8-9 shipments were but small in comparison to what they might or should have been.

For maize there is always a ready market in Europe, as this staple commodity is not only used as a whole grain and meal for the feeding of animals and poultry, but it is an important agent in the manufacture of corn-flour, starch, the distillation of spirits, and many other purposes.



Steam Cultivation
(The Cable system)

1.—A Harrow designed for steam cultivation 2.—A four-furrow reversible Plough at work on virgin soil. The engine which is hauling the plough is on the other side of the hill, out of sight.



The South African Government is fully alive to the importance of fostering the exportation of maize, and, in conjunction with the shipping lines calling at the South African ports, have arranged special export railway and shipping rates which compare favourably with any in the world. With such facilities South Africa ought to establish itself as an important factor in the world's grain production.

Special ocean freights to encourage farmers to grow crops for export have been secured by the South African Government from the Conference Shipping Lines sailing to British, Continental, and Canadian ports, which should serve as an additional incentive to increased activity in maize production. The facilities which the South African Government is now providing at the various ports include the following :—

(a) Special reduced rail rate from sending station to all South African ports.

(b) Services of grading officer at ports.

(c) Low insurance when handed to Government for disposal.

(d) Minimum of risk to consignments in handling on transit.

(e) Government shipment arranged at a minimum of expense.

(f) Maize sold afloat.

(g) On enquiry, all information regarding maize export arrangements, along with samples, is furnished by the High Commissioner for South Africa in London.

Only a few years ago maize was sneered at as a Kaffir crop, unworthy of proper consideration by enterprising farmers. Yields have been low and though there was an excellent market in Johannesburg, when crops were good prices fell to 5s. per muid, which barely paid cost of production and delivery. A crop of two muids per acre at 5s. per muid would not conduce to the planting of large areas. When a medium crop was harvested prices were good, running to 20s. and even 30s. per muid. What was needed therefore was some means of disposing of the surplus crop which exceeded the requirements of the local markets, in order to maintain a fair price and stimulate more extended planting. The opening up of an oversea market for South African maize has done this, and has, in consequence, aroused new interest in maize-growing.

The area under maize in Natal on European farms is approximately 440,000 acres, and the annual crop (which is increasing every year) is about 700,000 muids of 200 lbs.



Mine Props on the way to the Railway Station.

FORESTRY.—Natal is not without indigenous forests ; indeed, much of the Province is more or less bush-covered. There is great variation in the quality of these "bushes," many thousands of acres being fit only for fuel and hut-construction purposes, while on the other hand there are considerable areas of high forest of first quality. Many years ago, when settlers were of more value than timber, all accessible forests were practically given away. These, after having supplied the colony's requirements until importation and rail haulage began, are now in a more or less exhausted condition ; but, fortunately, the more distant forests, which still belong to the Government and are gradually being made more accessible as railways extend outward, contain much timber of high economic value for local use, especially as regards wagon wood. The forests of Natal, including Zululand and Vryheid, may be roughly estimated to consist of :—

Locations	133,000	acres
Heavy timber forests on Crown lands	70,000	..
Heavy timber forests on private lands (with locations).	...	
Low scrub forests on Crown lands	150,000	..
Low scrub forests on private lands and locations ...	645,000	..
Total more or less under forest or bush ...	998,000	acres.

The scrub forests are, however, of very low value indeed as forests, while even as fuel reserves their distance from the markets renders them practically without value, especially since the extensive culture of black wattle near the markets supplies at least cost a useful by-product of this nature.

The heavy timber forests consist of many species, mostly hardwoods for wagon work,

but with a preponderance of yellowwood (*Podocarpus elongata* and *P. thunbergii*). This timber, though harder than pine, has in the past taken its place in all the domestic economy of Natal, wherever imported pine was not easily obtainable, and does so still in the more outlying districts.

The acreage under valuable kinds is, however, still very limited, and almost all the house-builder's material, railway sleepers, heavy mine timbers, harbour piles, and wharf timber have to come from abroad—the pine from Europe and America, and the balance from Australia. This is not because the timber cannot be grown in Natal, but because it has not been grown there. Almost all the Australian kinds do as well as in their own country if suitable selection of soil and climate is made; while, with regard to pines, if the species now imported cannot be relied upon, others equally useful are suitable and can take their places.

There is not a district in which trees for ornament and shelter cannot be grown; but on the other hand the selection of species to suit peculiarities of locality for technical purposes is an art requiring close observation and considerable experience, rendered all the more difficult by the constant variations of altitude, aspect, soil, sub-soil, shelter, climate, distance from the sea, and hygrometric conditions. These variations prevent experience in one locality being of use in another without due allowance. Generally speaking, Australian species are easily cultivated throughout Natal, if sufficient selection of locality be exercised but European and American kinds, accustomed to a moist or snow-clad winter, are less successful, unless the selection of site receives great attention. In consequence of this, Australian trees predominate, and as these are usually stiff and formal in habit, the plantations are more artificial in appearance than is the case with similar plantations in Europe. The indigenous trees seem to belong to a receding flora, they are difficult to establish in plantations, slow of growth, and not vigorous enough to extend the area of natural forests without artificial help.



Loading-up Mine Props at a Railway Siding



Harvesting Potatoes

POTATOES can now be included among the main crops of the Natal farmer. The rapid growth of the market of Johannesburg and other up-country towns, the great increase of population in our chief towns of Pietermaritzburg and Durban, and in South Africa generally, and the advantages of railway communication with all the chief centres of population, have created a demand and a market for all kinds of produce quite unknown in the early days, of which the more progressive of our farmers have not been slow to avail themselves.

Not so many years ago, potatoes were grown to a very limited extent, and even among farmers there were many houses where these so necessary vegetables were missing from the table for most of the winter months. Now all this is changed, and there are few houses where potatoes cannot be found all the year round.

Ten to fifteen years back it took very small supplies to overstock the local markets. and the man who grew a hundred bags or so had much difficulty in finding a sale for them. It is even told how, in the early days, an enterprising farmer took a wagon load of potatoes to the city of Pietermaritzburg, and not being able to find a customer turned them out on the Market Square, whereby, to add to the loss of his potatoes, he was charged by the Corporation for their being removed as a nuisance. Times have altered, and there are now a number of men who grow their two and three thousand bags or more, and find ready markets.

Potatoes will grow nearly anywhere in Natal. Speaking generally, they do not grow well on the coast lands, and thrive only moderately on the rising country between Durban and Maritzburg. The midlands and the upper portions of the Province, at an altitude of about 4.000 feet and upwards, are the lands where they succeed best. There is a large extent of country to the west of the main line of railway and between that and the spurs of the Drakensberg where they grow luxuriantly, and thousands of acres are eminently suitable to their culture.

Of course, with heavy articles like potatoes, the cost of transport is considerable, and it is useless to grow them in quantity unless within reasonable distance of a market or railway. Consequently, in many of the outlying districts best suited to them, they are only grown for local consumption. With increased railway facilities, however, and branch lines, these outlying districts will gradually be brought into touch with the markets.

The cost of growing an acre of potatoes in Natal, including the seed, fertilisers, and labour, usually varies from £8 to £12. The best months to plant are from the middle of September to the middle of November, after which better rains and good growing weather prevail. The late crops planted in December or later always suffer more severely from blight and are usually very light.

The implements required are not many or expensive, one or two single-furrow ploughs, a set of harrows, and a ridging or double mould-board plough being all that are wanted to grow on a moderate scale. Potato planters, diggers, sorters, and other expensive implements are only necessary to very large growers. A pair of good strong useful horses or six quiet oxen are also indispensable.

Potatoes are in most countries a somewhat uncertain crop, success depending on many things, condition of seed, favourable seasons and freedom from insect pests, blight and diseases, and not always in the control of the farmer.

The man who goes in for the growing of potatoes should not be discouraged by one or two partial failures. Two or three good crops will more than make up for the bad ones.



1.—A Natal Homestead *2.—Shelling Maize by machinery*

LIVE STOCK.—DAIRYING in Natal is an industry to which, until comparatively a few years ago, but little attention has been paid, and although it is probably one of the most profitable branches of agriculture that can be carried on with success in this country, it is not receiving the attention from agriculturalists that it should. That there is an immense demand in South Africa for dairy produce will be apparent from the fact that, in 1910,

£73,554 worth of butter and £48,302 worth of cheese were imported into Natal overseas. The whole of these imports are not, of course, consumed in Natal, a portion being intended for the inland Provinces and territories.

It may be asked whether Natal is really suitable for dairying, and, if so, why more interest has not been taken in it; why, too, the industry has not made advances, and what is necessary to make it successful in Natal.

That Natal is suitable for dairying is beyond doubt. In many districts, and in normal seasons, cattle have grazing for eight months in the year that, without any ration of concentrates, will produce milk. Suitable foods for feeding cattle in the winter months can, without much trouble, be grown on most farms, and labour, in comparison with other dairying countries, is cheap. The winter season on the coast and the midlands is not severe. Natal is fitted, perhaps, to a much greater extent for dairying than for grain producing. Furthermore, where dairying is carried on pig-raising also is practicable, and there is a large demand in South Africa for pigs. If dairying were extensively carried on in Natal the erection and successful carrying on of bacon factories would be possible, and the production of bacon, hams, sausages, lard, etc., all of which are at present almost entirely imported, although bacon and hams, etc., of most excellent quality can be produced in Natal. It is not because the climate makes it impossible, but because a steady supply of pigs at prices that would leave a profit is not available, that importation is necessitated.

Why has not more interest been taken in the industry, and why has it not made greater advances? There are various reasons, the most important of which are the following:—The presence of the organisms of "red-water" as it is known here (Texas fever in America and tick-fever in Australia), has checked the importation of animals for stud purposes and for the rapid improvement of herds, and many of the most energetic and enterprising of the stock-breeders have had to discontinue importing owing to the heavy loss sustained. Rinderpest and lungsickness have played their part in reducing herds and throwing back breeders who were endeavouring to advance, and the Boer war had no inconsiderable effect upon the industry. The ordinary cattle of the country are not profitable as dairying cattle, the system of milking and management is in most cases entirely wrong, and how to properly feed is known to but very few. Given inferior cattle, a bad system of milking and management, want of knowledge in feeding, and there are sufficient reasons to show why dairying has not the successful results it should have. When the paralysing effect of East Coast fever, which is raging in many parts of the country at the time of writing, is added, the sum total constitutes a sufficient answer to the questions.



A View of a Dairy Farm

What is necessary to make dairying successful in Natal? First and foremost the grading up of the stock of the country. This is being successfully done in several instances. Government has started a stud, and from this it is hoped to produce sires of milking strains for sale to farmers which should prove of great service. Progressive and energetic stock farmers are also rearing pure-bred milking cattle of the Shorthorn-Friesland and Devon strain for sale as stud animals.

The farmers themselves, by determining to make dairying successful, can do a very great deal in a comparatively short time to improve their stock by grading and selection. It is worth their while to do so, as in few countries is there a better prospect than in Natal. Until the creameries were started dairying was, generally speaking, carried on in the most erratic and haphazard manner. The results obtained from supplying the creameries came as a revelation to some farmers, and many are now taking the matter up in a business-like way, and find it the best money-earning branch of their farms. The system of milking, and the management of the dairy herd, are of almost equal importance. The present custom of allowing the calf to suck the cow must be abandoned and hand-rearing adopted. The system in vogue here will not be found in any dairying country in the world. Calves can be reared with as good results as in the case of those allowed to run with their dams, and much more successfully than those which are allowed to suck their dams and the cows milked.



On a Stock Farm in the Midlands

Anyone wishing to engage in dairying in Natal, who starts on the proper lines will, in a comparatively short time, be able to earn a good income, there being almost an unlimited market available for dairy produce. By purchasing good grade cattle and steadily working to improve these, the herd in a reasonable time should become most profitable. If butter were produced and sold to the creameries at an average price for all the year round of 1s. per pound (which is a much lower price than is being paid at present), at that time grade cows would give a return in butter to the value of £12 per annum, and with careful attention to selection and breeding, the herd could be improved to produce butter to the value of £15 to £18 per cow.

The fodder and grain necessary for feeding during the month when good grazing is not available could be economically produced, and the value of the calves and of the separated milk to feed pigs would go a very great way towards paying for all expenses in connection with the milk cows.



Making Butter

Writing in 1905 on the subject of dairy-farming in Natal, Mr. Percy Simmons. J.P., one of the judges of the then existing Natal Agricultural Society's Judges' Association, and one of the pioneers of well-bred stock in Natal, said:—

"Dairy-farming in Natal on a sound business basis has only come into vogue during the last few years, and in this particular branch of farming I foresee the best chance for new arrivals and beginners. Land near an established creamery, or on the line that conveys the dairy products to the creamery, is not so easily obtained, either on lease or on purchase, as land away from both, but I am convinced that those with capital will find it pay best to take up this land. A word may be considered advisable here regarding capital required. To purchase such land £2 10 to £3 will have to be paid for every acre needed. To rent land 2s. 6d. to 3s. an acre would have to be paid. I contend that 1,000 acres would bring in a very good living. Of course, I am assuming that the farmer means work. Should sport or other amusements be uppermost in his views of life, then he needs capital according to his tastes and ways of living, but if a man means to make farming pay let him have, as his first object, his farm, and then he may use his spare time for what amusement he most enjoys. In writing this I have in my mind's eye those who are occasionally seen here who either let everything slide because it is a fag, and it is easier to grumble than to work, or who get into the habit of becoming verandah pipe-filling and lighting, easy-going farmers. The genial climate and the habits of the natives and animals here induce this mode of life, but it is not farming. The fact that even this class of farmer can scrape along in the Province speaks volumes for the country. In any other colony such men would soon be ousted by more energetic folk. I have never known a stock-farmer in Natal go bankrupt. I have never known a man to make a large fortune in a short time, but I have known very few who have once settled on the land and then wanted to go to any other country. I have seen some leave, but have witnessed



Loading Fruit for Market

nearly all of them return and start here again. Creameries in Natal pay a good price both for milk and cream. In starting a dairy farm, an immigrant must not expect the natural grasses of the country to supply all the food necessary to the cows. As a matter of fact they won't, but with a little farming, crops for feeding your cows can easily be grown. There is one serious drawback—hail. It has visited me three times in eighteen years; one year it destroyed most of my crops, but this is the only serious drawback which I consider we have. Some farmers have never experienced it, and they are fortunate. I am content with my average of once every six years.

"Perhaps a word regarding smaller farms may here be added. I am of opinion that if close to a creamery and in a healthy district, such as all the high veld of Natal is, a man may do very well on 200 acres. A herd of dairy cows, some pigs, poultry, and a small garden, will bring in a very good living, but the man must understand his work and not depend on native labour. A man with two sons could manage very well, provided they kept to it all the week. A very small capital would hire stock and provide necessary implements for such a farm. Five hundred pounds would be ample, but no one should come out to this country without first corresponding with the Government Department of Agriculture. I will here instance what can be done in Natal with one cow. I started cattle farming by expending the sum of £54, if my memory serves me rightly. Anyhow, I bought a few cows at £5 apiece and one at £15. This latter cow had already two crosses of shorthorn blood in her veins. On my reporting my purchase to the gentleman with whom I had been learning farming in Natal I got a rating, and was told that I should have bought three at £5 in the place of the one at £15, and I expect nineteen out of every twenty farmers would in those days have given me the same advice. The £5 cows did not break me, neither did they make much for me, but the £15 animal, judiciously mated with the best shorthorn bull then available at stud in Natal, brought me a small fortune in herself. I sold her first calf for £10, her next for £15, her third for £25, her fourth at the Durban Show, a heifer with her first calf (calf held back), for 45 guineas, her fifth for £35, her sixth for £30. From the fourth, fifth and sixth I kept their calves before selling them as milkers.

"Her seventh I sold for £25 a bull calf, and his purchaser is at my elbow as I write, telling me that he sold the bull after using him many years, for £30. From the progeny I kept of this one cow I have built up a little herd of splendidly constitutioned cattle, the females are all good milkers, commanding the best prices as milk cows. I sold the original cow when old for 15 guineas, and she gave her new guardian satisfaction. I have since won many a prize with descendants of this cow. There is no reason why others should not get similar encouragement if starting with limited capital. Natal is a pleasant country in which to farm, and the climate in the uplands is everything one could wish."

There is no reason why eventually Natal should not produce all that it has now to import for local consumption, and in addition send supplies to the neighbouring states, for when the industry is taken up in earnest in Natal, its natural advantages must place it in the front as the leading dairying country in South Africa.

To those who wish to start dairying in this Province, it is of the greatest importance that they should start on the right lines. Experience gained in other countries will be of value, but local knowledge will need to be added to that experience. A large acreage of land is not necessary, but the farm must contain a fair amount of agricultural land that can be cropped as well as good grass lands. A farm of from 500 to 2,000 acres would suffice to carry on dairy farming on a fairly large scale, and the intending dairy farmer with a knowledge of the proper management of cattle, how to grow food, how to feed and what to feed, and, above all, with steady perseverance and the determination to make a success of it, has a splendid prospect before him in view.

CATTLE.—Natal is eminently suited, in most parts, to cattle rearing, but the progress of the industry has been hampered by outbreaks of disease, particularly rinderpest, which swept through the country in 1896-7, and East Coast fever (a tick-borne disease), which is at the time of writing decimating the herds of the country. There are at present in Natal, in round numbers, about half a million cattle, owned by Europeans, Natives and Indians. This is less than there were 25 years ago, when there were just over 600,000 cattle in the country. The number of cattle attained its high-water mark, however, quite as recently as 1905, when there were approximately three-quarters of a million. The rinderpest scourge already alluded to gave a terrible blow to the industry, which was recovering well when a



Watering Time



On a Natal Dairy Farm

further blow was dealt by East Coast fever. The following figures, representing the number of cattle in the country in each of the years 1885-1908, show this clearly:—In 1885 there were 600,984 cattle; 1886, 629,725; 1887, 611,794; 1889, 745,931; 1891, 686,583; 1892, 694,347; 1893, 724,120; 1894, 703,396; 1895, 738,450; 1896, 738,732; 1897, 241,933; 1898, 232,323; 1900, 306,292; 1901, 356,511; 1902, 400,983; 1903, 626,727; 1904, 664,874; 1905, 783,887; 1906, 634,547; 1907, 416,527; 1908, 538,413. The rinderpest plague killed off half of the cattle belonging to the Europeans, and in two years six-sevenths of those belonging to the natives. In two years the total number of cattle was reduced from 738,732 to 232,323, there being a loss of approximately 500,000, which, at the price then prevailing, was equal to £3,000,000. This was a serious loss to so small a country, and it speaks well for the farmers that they came out of it so well. Indeed the figures quoted above are eloquent testimony to the suitability of Natal to cattle raising, in that they illustrate the recuperative powers which the country possesses.

Once rid of the present scourge the cattle industry will go ahead once more, and in the future it is anticipated that great strides will be made.



Horses on a Stock Farm in the Midlands



Type of a General Purpose Horse as bred in the Midlands

HORSES, Etc.—The breeding of horses, mules and donkeys, whilst not carried on on a large scale in Natal, nevertheless is an industry which is well suited to some parts of the country, and which is profitably carried on by some of the farmers. There are approximately 33,000 horses in the country belonging to Europeans, to which must be added between 25,000 and 26,000 in the possession of natives. Mules number 4,424 and donkeys 5,442, practically all in both cases being in the possession of Europeans.

THE PIG INDUSTRY.—In the pig industry, as in the dairy, the possibilities are great, as is shown by the figures relating to imports. As in the dairy industry, again, the pig industry in Natal is at the present time in a neglected condition, although the erection of a bacon and ham factory upon modern lines at Nel's Rust has proved a stimulus to farmers in this direction.

Prior to the locust invasions in 1896, Natal farmers were commencing to overtake the demand for bacon, ham and lard, but the locusts completely upset the pig business, and since then rinderpest, war, and other abnormal conditions have prevented its being taken in hand, owing to the staple pig-feed (maize) having been enhanced and kept too high to allow of pigs being profitably fed thereon. It has, during such times, paid better to sell the maize and reduce the number of pigs to each farmer's requirements for purely home consumption. Now, however, the maize market in Natal is in a normal condition, as a result of the oversea exportation of the grain, prices will, except under very abnormal conditions, remain fairly steady, and will not be characterised by the fluctuations which have in the past been experienced as a result of varying crops. When maize was very cheap it paid better to raise pigs rather than to send the grain to market. On the other hand, when maize was dear farmers found it paid better to market the grain, and as a result the pig industry was dependent to a very large extent upon the state of the maize crop from year to year.

Feeding pigs wholly on maize is, of course, undesirable, and will not return the profit that a variety of foods will. Pigs, to thrive properly require to run in the veld, where they will pick up a good share of their food. Anyone who has not the land to run them on can

manage by growing green crops and allowing the pigs to feed them off the ground. A wide range of green foods can be easily grown at very little cost, according to the locality in which the farm is situated. There is no part of Natal better situated for pig-farming than the Thorns, and especially so where the land can be irrigated. The "mbuya" grows wild everywhere in the Thorns, and there is nothing to beat it for feeding pigs. They can live on it alone, but are the better for a little grain in addition, which, while assisting to keep them in good condition, makes any that may stray away from the herd boy go home at sunset by themselves to look for the grain ration should it be fed at that time. In other places, where the land does not grow "mbuya" so easily, some crop such as rape, oats, turnips, or artichokes, can easily be grown. "Mbuya" needs no planting. In the Umkomanzi Valley, for instance, all that is required is to plough the ground, and it comes up as thick as it can stand. In other thorn valleys it may need starting, but will grow anywhere where land is not too poor.



"In their glory"—Scene on a Natal Pig Farm

The breed of pigs to adopt is to a large extent a matter of choice. It depends upon whether it is intended to cater for the pork or bacon trade. As porkers Berkshires are perhaps as good as any, but for a bacon pig the Tamworth, either pure or crossed on the Yorkshire White or Berkshire is preferred by many.

In Natal pigs do not require the substantial and expensive buildings required in European countries. About all that is needed is a large yard or pig-proof kraal of any materials that are handy, wire will do, but a good stone wall is best, and a few small pens in which to place the sows when about to farrow and in which to keep those that are too young to send out to graze. These pens are the better for being partly roofed, so as to

afford shelter from the rain and sun. If there is no shade for the young pigs the sun often blisters their backs, causing trouble which retards their growth. White pigs are much more subject to getting sunburnt than other breeds, which is one of the objections to them.

To start pig farming in a tolerably large way costs, compared with other kinds of stock, very little, and the rate at which they breed enables a farmer to increase his stock in a comparatively short time to pretty well any number he is capable of keeping, so that they are just the thing for the man with a limited capital. Ten young sows can be had for £25 and a young pure-bred boar for, say £5, so that £30 is sufficient to purchase ten sows and a boar, sufficient to start with, as at the end of twelve months with any luck breeding sows could be increased to fifty if desired from those bred on the place and boars could easily be obtained from elsewhere.

The amount of land required for a pig farm depends very much on the locality and the treatment the pigs get in the shape of food supplied them other than what the farm grows. For instance, if within a short distance of Pietermaritzburg or Durban, where large quantities of food can be purchased very cheaply at times by anyone on the outlook for it, a much smaller acreage would be needed than where all the food had to be produced on the land. The land itself also would affect the numbers capable of being profitably kept thereon, so that special acreages can be started as needed. A living can be made, however, out of pigs on a small acreage, and with less capital than with either horses, cattle or sheep.



"Folded"

WOOL AND MOHAIR.—Wool production and export ranks among the most important of Natal's farming industries. The sheep industry has, however, suffered in the past from various causes, among which may be mentioned thefts by natives, the prevalence of certain diseases *(e.g.*, bluetongue and gallsickness), the depletion of flocks as a result of the Boer war, and the influence of the cattle disease, rinderpest. As regards the last-named factor, the rinderpest plague of 1896 and 1897 seriously depleted the herds of cattle with the result that cattle-farming became more profitable than sheep-raising—to the consequent detriment of the wool industry.

The greatest number of sheep recorded as having been in the possession of Europeans in the Province in any single year was in 1895—just before rinderpest appeared in Natal—

when there were 950,187 sheep. The following statement shows the effect of rinderpest upon the sheep industry, and it also shows the recovery which is taking place in the industry from the effects of the plague :—

Year.	Sheep in the possession of Europeans.	Cattle in the possession of Europeans and Natives.
1896	802,579 ...	738,732
1897	657,490 ...	241,933
1898	543,619 ...	232,323
1899	No return. ...	No return.
1900	523,385 ...	306,292
1901	504,040 ...	356,511
1902	485,846 ...	400,983
1903	509,987 ...	626,727
1904	568,946 ...	664,874
1905	587,151 ...	783,887
1906	600,055 ...	630,857

The drop of approximately half-a-million cattle shown in 1897 was the direct result of the spread of rinderpest. It will be seen that it took the Province eight years to attain the level it reached in pre-rinderpest days as regards the number of cattle in hand.

The wool production of the Province is about two million pounds per annum.

The Angora goat industry is also of some value. In 1909 there were 91,038 Angora goats in the Province, and the production of mohair amounted to 270,653 lbs. Goats do well in many parts of the country, and the industry is one that could profitably be extended.



On a Natal Ostrich Farm.—Ostrich Farming is one of the coming farm industries of Natal

OSTRICH FARMING: A POTENTIAL INDUSTRY.—The ostrich industry, so important in the Cape Province, is represented in Natal by about three thousand birds. Ostriches do well in the "thorns," and at Estcourt and Weenen they are a great success. The Government has been making efforts to encourage the taking up of this industry by farmers, and their endeavours will probably bear good fruit ere long. The high price of good birds has, however, had a deterrent effect upon those who might otherwise be disposed to take up ostrich farming, but that there are good profits to be made out of the industry there seems to be little doubt. A well-known Natal farmer who has farmed ostriches successfully for many years says :—"I cleared within two-and-a-half years £318 gross profit

on my small investment of £125. I cannot think of anything else in farming that pays better." He remarks further: "Ostrich farming in the thorn country of Natal is a solid and most profitable industry, there is no mistake about that. But the man must know how to do what is wanted, and his supervision should be constant."



An Ostrich and its Eggs



"The First Arrival"
An Ostrich nest, with a young bird just hatched

POULTRY.—There are, on the farms of Europeans in Natal, nearly 400.000 poultry spread over between four and five thousand farms. In the whole Province—*i.e.*, in the possession of the coloured races as well—there are over 800.000. There are good opportunities for men who are willing to take up poultry-raising on modern lines, and the Customs figures of imports show that there is an extensive market in South Africa for poultry and poultry products. There are diseases to contend with, of course, chief among them being the so-called "fowl-sickness," but they are not insurmountable, and there are numbers of poultry raisers in the Province who are carrying on their business on intelligent lines and profitably.



A Flock of Turkeys.

HONEY PRODUCTION.—There are about 2,500 bee-hives in the Province producing over 20,000 lbs. of honey. Bee-keeping has of late years made considerable progress in Natal, and, with the formation recently of a Natal Bee-Keepers' Association, increasing attention is being paid to it, and there is a greater realisation abroad of its possibilities. There is a large South African market for honey, which is at present supplied chiefly by oversea producers, but it is probable that ere long Natal will be claiming a considerable share in the catering for this branch of trade in South Africa.



Fruit Growing in Natal

By Claude Fuller, F.E.S.,

Chief of the Division of Entomology and Horticulture, Natal

One of the many charming features of this delightful sun-lit land is its rich and remarkable diversity of fruits. In itself comparatively small, one has only to select any small part of the Province to discover, growing well-nigh luxuriantly, the fruits of many lands, temperate to almost tropical.

From the sea, as the crow flies, to seventy miles inland, the country, loitering only in the river valleys, bounds rapidly upwards to an elevation of 5,000 feet. Hill and dale and deep river valley quickly succeed one upon the other all the way, so that the traveller by roadway or railway must perforce progress forward with so many winding turns and doubling loops that many a short distance is a long journey. So it happens that first because of its latitude and then because of its configuration Natal is a veritable garden, sustaining within a few miles of the Indian Ocean the whole gamut of fruits from the cocoa-nut of torrid climes to the hazel-nut of the homeland.



It would be no great exaggeration to materialize an ideal fruiterer's window in Pietermaritzburg and stock it with fruits galore gathered in from within a 35 mile radius only.

*Here would be the round piled up oranges, deepening almost into red, heavy with juice and vieing with them the sprightly flavoured naartje and the sweet mandarine. Next them, yellow lemons garnished with limes, pompous shaddocks and fat pompelmousse, sweet lemons, rough lemons, kum-quats, in short, the citrus tribe in Eldorado. Pears swelling downwards—mouth watering ; apples with brown-red cheeks—as if they had slept in the sun; furry quinces, and brown medlars from fantastic trees, sprays of leitchies—fruit fit for the gods; and baskets of loquats. Mangoes—whose juiciness tickles the mouth's corners; bananas and plantains gloved in yellow skins; pawpaws—full of vegetable pepsine; guavas and grenadillas—with which to make "angels' food;" pineapples—great and small and

*With apologies to Leigh Hunt.

tempting; rich anonas, sweet custard-apples, and sour-sops. Avocados—purple and green, the princes of salad fruits; thronging grapes—like so many tight little bags of wine. Cape gooseberries—each enseconced in its fancy husk, roselles—with flaming tones, and rose apples, raspberries too. Peaches and nectarines—luscious within their peeling jackets; golden apricots and little red mouthfuls of strawberries; plums—purple, red and gold, of Europe, America and Japan; perchance a few almonds and cherries—whose old comparison with lips is better than anything new; persimmons—like balls of red gold; mulberries—dark and rich with juice; walnuts and figs; wild amatungulas and "Dingaan" apricots; pomegranates—with hearts within blood-tinctured; cherries of Brazil; sapotes, also in their brown paper rinds; and swelling in rough-hewed pomp, the great jack fruits—in short,

"Whatever Earth, all-bearing mother yields
Rough or smooth rind or bearded husk or shell."



Fruit Farms

Such is indeed the picture one could create, but it must be borne in mind that the country does not possess all the natural advantages essential to the successful culture of so wide a range of fruits; and further, that for the present at any rate the culture of many that thrive well is not profitable upon any extensive scale owing to the absence of a good local and South African demand.

A drawback to the successful culture of many kinds is the continuance of the rainy season right through the summer months, followed by a long dry winter, conditions which frequently militate against bringing certain fruits to a first-class standard. Further, the prevalence of hailstorms in certain districts makes the culture of varieties most suitable to them very hazardous.

In a general way the Province is usually divided into three regions, the littoral, the midlands, and the highlands; but it is impossible to demarcate the several fruit regions satisfactorily, because certain kinds natural to the littoral are found flourishing in unexpected places inland where shelter from conditions generally prevailing affords them the opportunity of existence. Indeed, the uneven nature of the country is such that certain fruit grow oasis-like in wide spaces, throughout whose bleak cold winters they could not otherwise survive.

BANANAS constitute the great fruit product of the country, being extensively cultivated upon the coast for local consumption and export throughout the Union. Unfortunately this great fruit asset—the crop is worth quite £80,000 per annum—is largely in the hands of Asiatics. Some Europeans are, of course, engaged in Banana culture, but this number is regretably small. More than for a few miles inland the Banana does not flourish, but the

harder plantain is often found well up country, where the necessary shelter is afforded. In fact in one such site under the Howick Hills, at an elevation of 2,500 feet, Bananas do quite well. The supply of this fruit cannot be said to meet the demand, and the local consumer has to pay what can only be described as remarkably high prices. There being no surplus crop to handle, such bye-products as banana-flour, dried bananas and banana figs are unknown. Oversea export, beyond South Africa, has never been attempted, and it is hardly likely to ever prove remunerative nor even necessary with so large and growing a demand as the future indicates. A number of varieties are grown which compare well with the bananas of any country for flavour, but many good sorts are still unknown. There are practically no pests to contend with in connection with Banana culture in Natal.

PINEAPPLES grow in the open sandy soils of the coast to some 15 miles inland, and can be produced to perfection. Upon the whole, however, the culture of this fruit is not in the position that it should be. The two varieties generally propagated are the large smooth-leaved "Cayenne" and the small "Golden Queen" of Natal. Recently the "Azores" pine, so favoured by the London market, has been introduced. It is apparently a strain of the smooth-leaved "Cayenne," and so far shows much superiority over the local strain, which in time it may with advantage replace. At present there is every prospect of a good export trade being established with the smaller of the two pineapples. It is true, of course, that the larger type is preferred upon the Home market, but our large "Cayenne" does not appear



"Golden" Pineapple
Weight, 2-lb



"Cayenne" Pineapple
Weight, 5-lb

to lend itself to such distant transportation and even if sent to the best advantage, it is doubtful whether it will fetch a figure sufficient to leave a profitable margin after paying freight and charges.

The smaller fruit of the "Queen" group is very properly celebrated for its flavour, which, upon good authority, is unexcelled by any pineapple grown anywhere. As at present propagated, however, it is too small to bring a figure sufficiently high to be profitable despite the fact that it will travel out of cold storage and consequently at a much cheaper rate than the "Cayenne." Very satisfactory prices have been offered for pines of the "Golden Queen," providing the fruits run from 2 lbs. to 3 lbs. in weight. At present they run, as a general rule, from one-half to three-quarters of a pound. Many growers contend that a weight of 2 lbs. is beyond this variety, but experiments at Winkle Sprut have demonstrated that by renewal planting fruits weighing from 2 lbs. to 2¾ lbs. can be readily produced, and that it is only by following this practice coupled with manuring that an export trade is likely to be built up and maintained. In renewal planting the same soil may be used for a succession of plantings, but the plants are removed after bearing their main crop. The first fruits, called "plant pines," are good sized but few, after bearing these the plants ratoon and sucker and bear their main crop. If the fields are left they will go on bearing in this way for many years, but the fruits gradually become smaller and smaller. Speaking generally the insect and fungus pests of pineapples are unimportant.



Pineapple Plantation
"Smooth-leaved," or "Cayenne," Pine

MANGOES constitute the third exclusively coast fruit in importance. They are not cultivated extensively, and by far the majority of trees bear fruit of the poorest quality—something like to a mixture of tow, turpentine, and treacle. No inland trade has been developed, as most of the fruits sent to the markets are of the worst class and calculated to deter anyone from acquiring a taste for mangoes. The whole of South Africa exists as a market for fruit of good quality, and further, there is undoubtedly a growing demand for first class mangoes upon the London market, prices offered being sufficient to encourage export. From every point of view there is reason to believe that the future holds out great possibilities in the culture of mangoes. The most insiduous pest the crop suffers from is the fruit fly, but it can be readily controlled by Mally's Baiting method.

AVOCADOS, miscalled avocado pears, flourish along the coast belt and enjoy a complete immunity from pests. Unequalled as a salad fruit, a taste for the remarkable flavour of the Avocado is quickly acquired—however little it may be appreciated at first. As with the Mango, so with this fruit, there is both a South African and European market to

be developed. The supply is small owing to the non-productiveness of many of the trees and the number of years that frequently elapse before any come into bearing. There is no reason why, by working wood from good bearing trees on to young seedlings, regular and early-bearing Avocado orchards should not be established.

The purely local demand for the fruit is good, but a South African demand is practically non-existent, chiefly because the fruit is unknown and the taste for it still unacquired. For long it has been looked upon as too delicate a fruit to send any distance. but whilst little has yet been learned regarding the best methods of packing for distant markets, small lots have been successfully shipped in cool storage to London, when the prices realised were sufficiently good to encourage growers to take up their export.



Orchard in Town Bush Valley

ORANGES are largely grown along the coast, and their culture extends inland to an elevation 3,000 feet above sea level. Although flourishing and producing heavy crops of well-flavoured fruit, under coast conditions the oranges are not of such good colour or keeping qualities as those grown at between 2,000 and 3.000 feet. The coast orange is delicate and the colour yellow, two features which have militated against its shipment over sea. In the Richmond-Maritzburg-Greytown belt, whilst the fruit does not always acquire that "deepening into red" which is looked upon as so attractive a feature, it has proved the most reliable of our fruit products for export to Europe. Although the quantities sent forward have been but meagre, the results so far have been most encouraging. During the 1910 season, May to September, 200,000 fruits have been shipped to the London market. For these the lowest return realised has been 2s. per 100 upon the tree, whilst the general return has been between 4s. and 5s. per 100. As these figures represent actual nett returns after deducting all expenses under the headings of picking, packing, wrappers, boxes, railage, freight, commission, cartage charges and wastage, they stand as a very fair argument for the success of the enterprise.



1 and 2.—Natives picking Oranges
3.—Young Citrus Orchard
4.—Natives packing Oranges for Export to Europe
5.—Talking a consignment of Oranges for Europe

NAARTJES.—The term "naartje" is applied by Natalians to any flat mandarine-orange, the word "mandarine" being used to designate a more globose yellow strain of sweeter but less sprightly flavour. The Natal naartje is undoubtedly a very choice variety and, when at its best, is equal to an orange in flavour, being without that insipidness which characterizes the group. Of recent years a number of foreign varieties have been introduced, such as the Bombay naartjes, "Beauty of Glen Retreat," "Emperor," "Thorny," and others. But none of the introduced kinds can be compared with either of the two old strains, whose origin is quite obscure.

The naartje comes to perfection along the coast and does not do well inland; such also is the case with the mandarine, except that it does better than does the naartje, up-country. Both are grown chiefly from seed, and for years past have been regarded as fruits around which the possibilities of export bulked largely. Extensive shipments have been made to Europe, and, all things considered, the fruit has had a good reception. To make its export profitable, however, fancy prices are required, owing to the heavy expenses involved



Pawpaws (Male and Female)

in freight, etc. As a fancy fruit the demand is limited and further interfered with owing to competition with the summer fruits of Europe. Early shipments of first-class naartjes are very profitable indeed, but later on prices shorten so suddenly, and so much, that the exporter has to be most careful. It is questionable whether the export of naartjes will ever become of considerable importance, certainly their export will never compare with that of oranges; and, as South Africa puts more and more oranges upon the English market, so will the demand for naartjes decrease, as not only are oranges more favoured but far cheaper.

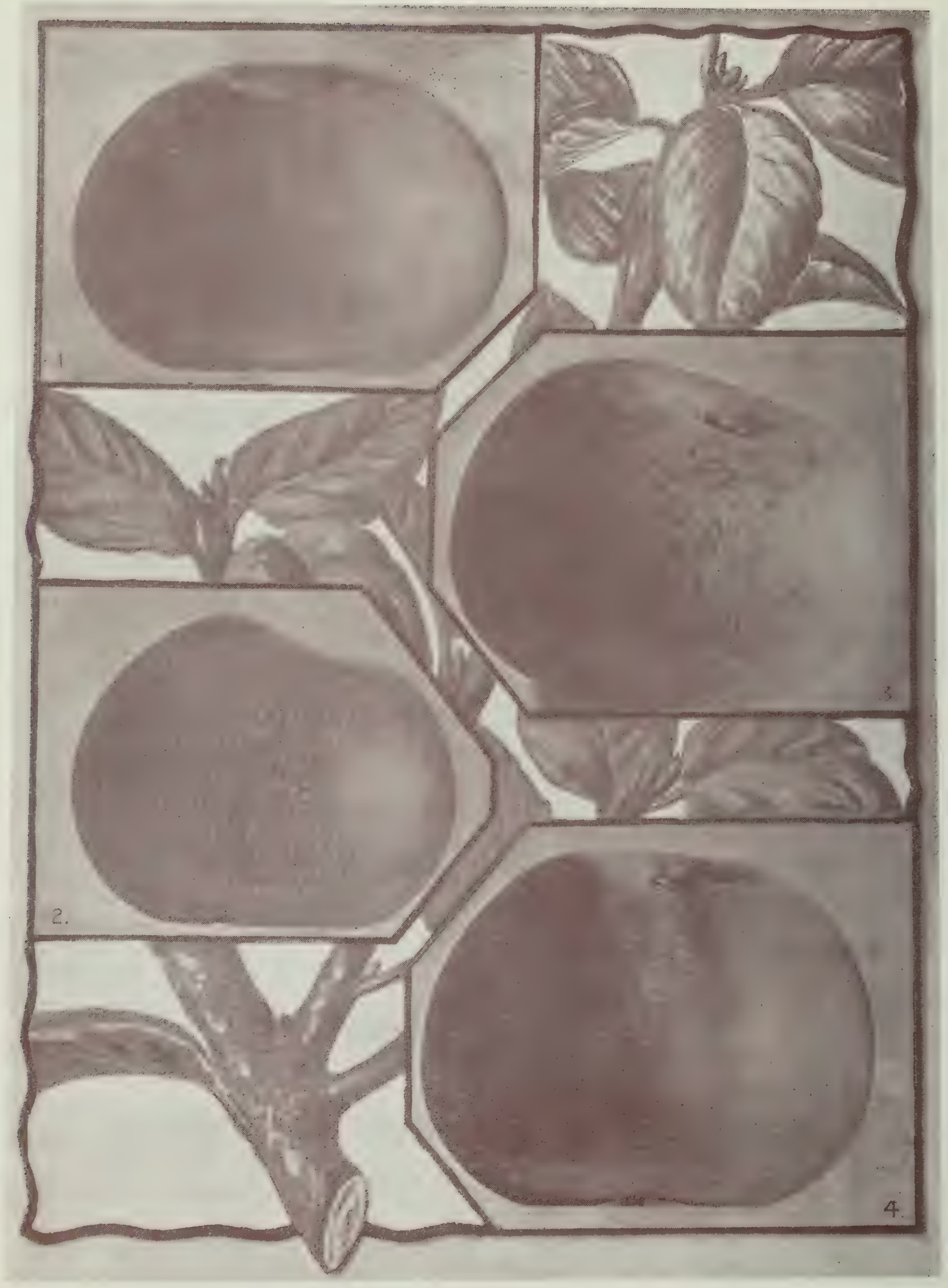
LEMONS AND LIMES.—Lemons flourish much better than limes, and do well in the coast and midland districts. The better-class lemons, such as "Villa France," "Eureka," "Lisbon," and "Genoa," produce good crops, but are not grown to any great extent. There seems no possibility of developing an export trade in lemons, but the future for lemon-culture is a good one. Lemon groves are to-day very profitable, and the supply does not approach the demand. As the population of South Africa increases the consumption of this most useful fruit must become greater and greater.

Of other CITRUS FRUITS there is little to say. Neither grape-fruits nor kumquats are grown commercially, and the demand that exists in other countries for the former has yet to arrive in Natal. The troubles of citrus culture are as many and as varied as those obtaining mostly elsewhere, but they are not any greater, and here as in other citrus-growing regions successful culture is largely synonymous with insect control. Apart from maladies of a physiological character—mainly, if not entirely, attributable to faulty stocks, mal-nutrition or inattention to the natural requirements of the citrus plant—scale-insects rank as the chief pests. Their successful control is, however, both practicable and profitable. Fruit-fly has frequently been most destructive to orange crops, but it is now one of the easiest pests to control, the conditions obtaining during the period of attack being most suitable to the method to which reference has already been made.

The PAWPAW grows almost as a weed along the coast and fruits prolifically. It is not subject to either insect nor fungus attack; and, as with the avocado, its possibilities in other South African markets has not been sufficiently exploited.



Kaffir Pears



APPLES FROM CENTOCOW, NATAL

1.—"Munro's Favourite" 2.—"Beauty of Australia" 3.—"London Pippin" 4.—"White Australia"

The ANONAS, commonly called "custard apples," or "sweet and sour sops," come to perfection both upon the coast and in the midlands. Whilst remarkably free from pests, but little attention has been given to them commercially.

PERSIMMONS grow very well in the midlands, but the demand for them is small. Except for the fruit-fly no other pest attacks them.

The LEITCHIE, perhaps the sweetest and most perfectly flavoured of all sub-tropical fruits, bears well near the coast, but the number of trees is small owing to the difficulties met with in propagation. What little fruit reaches the market, and that is at Durban only, fetches fancy prices. It is indeed extraordinary that someone has not long ago endeavoured to grow this fruit extensively. The South African market would absorb enormous quantities.

GRENADILLAS grow without effort wherever protection from frost is afforded them. The fruit going by this name in Natal is the purple hard-shelled seed pod of *Passiflora edulis*, better known perhaps as the "Passion fruit." This vine is not cultivated in Natal in the sense that it is in parts of Australia. By many it is regarded as an item for export, but there is no such prospect whilst the supply is so small and the quality, upon the whole, anything but remarkable.

The ROSELLE, or Red Sorrel (*Hibiscus subdariffa*), is grown by a few, and not at all generally known, although much to be prized for tart and jam-making.

GUAVAS flourish throughout the littoral and midlands, but guava cheese and guava jelly of local manufacture are unknown commercially.

Similarly CAPE GOOSEBERRIES thrive and abound, but most of the preserved fruit used in the Province comes from the Cape, where the plant is no more a native, and does no better than in Natal or Australia.

STRAWBERRIES do well throughout the Province, and with good management fine fruit is produced. Climatic conditions are sometimes adverse, and under such circumstances the flavour is apt to depreciate.

AMATINGULAS and KEI APPLES are but wild fruits of the coast and midlands. Although the former finds favour with some, there is little in it to recommend; the latter —also known as "Dingaan's Apricot"—is made into jam and jelly of a somewhat fierce nature.

The GRAPE, whilst classed amongst the fruits of Natal, is strictly speaking out of its element, conditions being against its successful culture upon any extensive scale. At the same time far more grapes could and should be produced than there are.

WALNUTS, especially the hard-shelled varieties, do very well from 2,500 to 5,000 feet above sea level. The walnuts of the shop and dinner-table are, however, imported articles.

Many parts of the upper midlands and high lands are, with certain exceptions, favourable to the production of what are usually termed HARDY FRUITS. One exception is the summer rainfall, which tends to weaken the fruits, lessening their flavour and their keeping and carrying qualities, and frequently interfering with harvesting at the proper moment. Because of this natural feature it will probably be found that early and late varieties will prove the more suitable to grow. Another and greater drawback to the development of fruit-culture in



Bunch of Grapes



1—Fumigating House *2—Irrigation*

these districts is the prevalence of violent hailstorms capable of not only destroying a whole crop in two or three minutes but of ruining the trees bearing them. There are of course bad hail belts, and again areas which enjoy comparative immunity from this destructive force but it would be rash indeed to say that any belt of country, 2,500 feet and upwards in elevation, was free from hail.

Of the hardy class that do not seem to find any natural environment in Natal mention should be made of cherries, almonds and to some extent figs and apricots. Plums do exceptionally well, especially the Japanese and myrobolans. European plums are not so much at home, except in the higher parts. Peaches too do very well even right down to the sea this fruit can be grown. Nectarines upon the whole are not very successful.

Apple and pear culture would certainly be profitable were it not for the ever-threatening hail.

The production of hardy fruits in Natal is in no wise sufficient to meet local requirements, and, when one considers the extreme risk attached to their culture in the areas most suitable to their growth, none but the most unwise would go further than recommend moderation.

So far as varieties are concerned, much further experience is necessary before any definite pronouncement could be made, and the indications so far point to a very limited adaptability of certain varieties.



UMPANGA (*Encephalartos Altensteinii*), Native of Natal

Agricultural Research and Education

Early recognition was secured by the Agricultural Department of the need for a systematic investigation of the numerous local problems of arable farming and stock husbandry, the practical outcome of which was the establishment of a system of Experimental Farms in different parts of the country for the conduct of field and laboratory research. Clearly defined natural areas, due to a wide range of climate and elevation, are typically represented by the different Government Stations, and the applicability of experimental results is consequently extensive.

At the Central Experimental Farm, Cedara, established in 1902, problems of mixed farming, as practised in the Midlands and Northern Districts of Natal, receive attention. Exhaustive experiments in the cultivation of the staple cereal crops have been conducted for a period of eight years, and simultaneously an effort has been made to demonstrate a profitable system of stock-breeding and management, with direct reference to a dry winter season when the natural pasture affords little support. An extensive experimental orchard and a large forest nursery are included in the general scheme at this centre, and the farm is fully equipped with chemical and biological laboratories, dairies, workshops and modern power machinery.

The many aspects of tropical agriculture, including the cultivation of sugar-cane, tea, coffee, fruit, rubber, fibre, oil and starch crops, are exhaustively studied by means of comparative experiments at the Winkle Spruit, Stanger and Empangeni stations on the coasts of Natal and Zululand. At Weenen a distinct system of extensive cultivation under irrigation is exemplified on the basis of lucerne, wheat, oats, barley, tobacco, fruit and peas. A digest and interpretation of the results obtained during the past eight years from all experimental undertakings is being published as a series of volumes under title "Cedara Memoirs," the first of which dealing with the "Cereal Crops in South Africa," is now obtainable from the Superintendent of Printing, Colonial Office, Maritzburg, at a cost of 10s. 6d.

The School of Agriculture and Forestry, originally organised as a supplementary feature to the Experimental Farms, is rapidly assuming a position of the first importance among the undertakings of the Division. A handsome residential college was completed at Cedara in 1906, since which year repeated provision of additional accommodation has been necessary to meet a demand for the training offered in the practice and theory of local agriculture and forestry. The establishment of branch schools at Weenen and Winkle Spruit has permitted the organisation of a curriculum calculated to qualify students for remunerative positions in any part of South Africa, a result reflected by appointments for graduates in all our neighbouring Provinces. The course, which at present extends over two years, embraces at Cedara a training in agriculture, horse-breeding, dairy, sheep, and poultry farming, horticulture, forestry, farm-engineering, farming, farm-building and carpentry ; while at Weenen and Winkle Spruit practical training is given in irrigation, farming, and tropical agriculture respectively.

The affiliation of the school to the Maritzburg University College, coupled with the grant of a chair in Agriculture to the Principal, opens a prospect of an agricultural degree to students capable of qualifying for this distinction. In addition to the normal residential course, special vacation classes are held during the month of July for schoolmasters from Government Primary Schools. It is hoped that by such means nature study may be incorporated in the elementary syllabus as an introduction to a subsequent study of scientific agriculture. The July course is also open to professional farmers who may be unable to take up the normal residential course.

At the Oblange Industrial School for Natives arrangements have been made for a special training in agriculture, and this undertaking is periodically supervised by officers of the

Division. At the Empangeni Government Station in Zululand a small Reformatory School of Agriculture has been instituted, and it is confidently expected that the principle will be found worthy of general adoption. Similarly a project, fathered by the Council of the Industrial Institute at Durban for the remunerative occupation of the unemployed youth of that city on an Industrial farm, in the suburbs, must meet with general approval and support.

The amalgamation of the agricultural, forest, and dairy services under central control in 1907 has rendered possible recruiting from the school of junior officers, and the creation of a tradition common to those engaged in education, research, and administration. Conservation of Crown Forests is effected by a staff of twenty resident foresters, while a parallel system of afforestation has been organised. Further information on the work of the Division will be obtainable upon application to the Director, at the Central Experimental Farm, Cedara.



1—Nursery *2—Students sorting Wool*

Land Settlement

The first portion of the railway journey from Durban to Maritzburg, the Capital of the Province, conveys the impression that Natal is fairly well populated—so far as Colonies are—and it comes as a surprise to most visitors to learn that Natal has only some five thousand farmers in all, and that it imports most of its food-stuffs. The land has all the appearance of "flowing with milk and honey," and yet has to import over four million pounds' weight of condensed milk a year, as well as much of the honey it requires. The first settlers, the Dutch, led almost entirely a pastoral existence, and the British following in their foot-steps have led a similar life, with the result that the average farm-holding at the present day in Natal exceeds 2,000 acres (4.000 and 5,000 acre farms being common), and that Natal has to rely on the outside world for the bulk of its agricultural and dairy produce.

A step in the direction of remedying this state of affairs and bringing about closer settlement was, however, taken in the passage of a Bill, entitled "The Agricultural Development Bill," through the Legislature in 1904. This Act authorised the foundation of a Land Board, consisting of four members of the farming community and one Government representative, with power, among other things, to select and render financial assistance to settlers and generally supervise the settlements.

HOW LANDS ARE ALLOTTED.—Crown Lands which may be open for selection by settlers are advertised from time to time in the *Government Gazette*, and intending applicants are required to make their applications upon a prescribed form to the Land Board, through the Secretary to the Land Board, Pietermaritzburg. They are also called upon to deposit an amount estimated to be sufficient to cover the cost of surveying the land applied for; to submit documentary evidence in regard to stock and capital, and to appear before the Board, or an individual member thereof, in support of their applications. In the event of there being more than one approved applicant for any particular farm or piece of land, recourse is had to the ballot. The term "ballot" is used as it is the one which appears in the Crown Land regulations, but the allotment of land applied for by more than one approved applicant is decided by the drawing of lots rather than by a ballot in the strict sense of the term. Should an applicant not be successful in obtaining land, the amount deposited on account of survey fees is returned to him.

In the case of the ordinary Crown Lands, the purchase price is payable in twenty annual instalments, the first of which is due and falls payable at the end of the third year from the date of allotment (being in respect of that year), and thereafter yearly at the end of every subsequent year. The purchase price per acre of the lands in Natal, suitable for stock and sheep-farming, averages from 10s. to 15s. Lands suitable for agricultural purposes vary considerably, from 10s. to £3 10s. per acre, according to the quality of the soil and to their proximity to the railway. No condition is imposed in regard to the value of the house to be erected by the allottees, it being considered that settlers should be encouraged to devote as much as possible of their capital to the development of their lands. Personal occupation, except in special cases, is insisted upon.

Special regulations are in force governing the disposal of lands which have been acquired by the Government at Winterton, Weenen, Varkensfontein, Eendvogel Vlei and Dubbelrecht. In the case of the Varkensfontein, Eendvogel Vlei and Dubbelrecht lands, the regulations are almost identical with those which apply to the ordinary Crown lands of the Province, the principal difference being that the first instalment of purchase price is payable at the end of the first year instead of at the end of the third.

In the case of persons who are already the owners in freehold or quit-rent tenure of a greater extent than one hundred acres of land, the allotment of additional land rests with Ministers, after a recommendation in the matter has been made by the Board.

In Zululand the Government is offering lands near the Coast for the cultivation of sugar-cane. These lands are being offered under 99 year leases, and lessees are absolved from the payment of rent during the first two years of tenure. The farms are classified as being of first or second class, and annual rentals of 2s. and 1s. per acre are payable thereon, according to the classification. An agreement exists between the Government and Sir J. L. Hulett for the crushing of all cane grown by planters within that portion of the Zululand littoral lying between the Tugela River and Empangeni Station. Copies of the Zululand Sugar Lease, the agreement to be entered into between the planters and Sir J. L. Hulett, and of the agreement which has been concluded between the Government and Sir J. L. Hulett, are obtainable from the Secretary of the Board.

First-class sugar farms average from 300 to 400 acres, while second class comprise between 400 and 500 acres. It is an essential condition of the sugar lease that in respect of first-class farms, each settler shall plant with cane 5 per cent. of the area of his land during each of the first three years from date of allotment, and that he shall thereafter maintain under cane a minimum of 15 per cent. of the total acreage of his farm. In the case of second-class farms, half the above percentages apply, and a minimum area of 7½ per cent. of the total area of such farms has to be maintained under cane. It is considered that applicants for sugar farms should be in possession of at least £500, and with such a capital a man should, with due economy, be in a position to cultivate a larger area than that laid down in the leases as a minimum.

Plans or sun-prints of the various Crown Lands in Natal and Zululand, together with copies of the regulations governing the disposal of such lands and information in regard to the meetings of the Board, can always be obtained upon application to the Secretary.



Lucerne Field

A GLANCE AT THE SETTLEMENTS.—Let us take a brief glance at the various settlements, taking the reader over the lands which are at present, or which may be in the immediate future, available for allotment to new settlers, in order that he may gain some idea of the extent of those lands, and of their eminent suitability for profitable settlement. We shall naturally commence with the oldest and best-known of these—

THE WEENEN IRRIGATION SETTLEMENT.—This Government Irrigation Settlement is on the Bushman's River, in the Thorn Country, and was formerly part of the commonage laid aside for the village of Weenen. It is distant from Estcourt 30 miles by railway and 25 miles by road, and is by rail 176 miles from Durban and 105 miles from Pietermaritzburg. The height above sea level is 2,841 feet. The settlement is surrounded by hills, and is consequently much hotter than other parts of the Province at the same altitude. The thermometer often registers 100 degrees in the shade. The soil varies, and is partly volcanic and partly alluvial, with some bands of shale, but on the whole it is very fertile. The aggregate area of the lots, which are all irrigable, is 2,043 acres, on which there are forty settlers.

In winter all the surrounding Thorn Country is very dry without a green thing to be seen, and the Weenen Irrigation Settlement at such times from the shoulder of the hill near Tiger's Kloof, or from any other commanding point, is very striking, waving fields of green crops of various shades forming a strong contrast to the brown grass and trees of the funereal black of the country where it has been burnt off; and on nearer approach and on driving through the blocks to the village, an object lesson is presented as to the benefits of irrigation.



"Breaking the Soil"

In a recent report the Superintendent of Settlements gives an idea of the progress which has been made and the reasons therefor. He states that previous to the year when Weenen came before the public in a new light, it was known as an oasis where forage could always be relied upon to give a heavy crop, and certainly up to 1904 gave a fair return, but with the increased importation from the Cape and the loss of military contracts, the price has dwindled so much that in most places it no longer pays. Mealies, too, used to pay well, the advantage of getting an early crop, which sold readily at the time when stocks in the Orange Free State and the Transvaal were exhausted, being of importance to the settlers, but now with lower prices it does not pay to plant with maize such small areas, which must, by reason of their position and their size, be worked on intensive lines. Lucerne has taken the place of these products and practically 80 per cent of the Weenen land is now under this

excellent fodder plant. Unfortunately Weenen soil is like that of the rest of the Province, "patchy," and it is only by careful study of different modes of planting, manuring, etc., that the maximum yield can be attained. The return per acre per cutting for the last season averaged 12 cwt. of cured hay, though on the best soils 22 cwt. per cut was obtained. Seven cuttings in the year can be made. The present price of cured hay is 70s. per short ton, f.o.r. Weenen Station.

The Weenen settlers are now devoting some attention to ostrich farming, and the opinion has been expressed that lucerne will give a return of £15 per aure per annum as lucerne, or £50 an acre if fed to ostriches.

The next settlement to be considered is :—

THE WINTERTON IRRIGATION SETTLEMENT.—The land of this settlement is, taken generally, of a very poor quality ; still, given facilities for watering, any ground can be brought by cultivation, manure, and rotation of crops, into a productive condition.

The Winterton settlers have had a great deal to contend with, and the settlement has not been a flourishing one under the conditions in vogue. It is generally conceded that the settlement is most suited to dairy-farming, and the Board was so impressed with this view that a sum of money was spent in the installation of a cream-separating plant to enable the blockholders to realise on their cream. This was before the railway was opened, and the cream had to be sent by mule-cart some 18 miles to Frere Station. Even with this disadvantage the proposition was sound, and settlers were adding to the number of their cows. East Coast fever, however, put a stop to all progress in this direction, and the blockholders have now to rely on their crops for an income. It appears probable that the only enterprise which will bring Winterton out and make it successful is that of dairying. On the small irrigable holdings food can be grown for feeding the stock during winter, while on the dry blocks and the commonage there is abundant food for a large number of cattle throughout the summer months, but a resumption of the industry is impossible until it is again safe to take stock on to the settlement. In the meantime the railway, which was opened to Winterton in 1907, brings the settlers within reach of markets, for such crops as they can produce, pending the resumption of dairying.

The sub-divisions of the settlement comprise 44 irrigable blocks varying in extent from 12 to 89 acres. Each of the irrigable lots carries the right to some 200 to 300 acres of arable but unirrigable land. There are still available for application 29 irrigable blocks, in addition to two dry farms of 400 and 500 acres each.

The lands are now being offered in freehold at an average price of £9 an acre for irrigable land, and £2 an acre for unirrigable or dry land.

The settlement is served by the Upper Tugela Branch Line of the South African Railways, and is situated at a distance of 24 miles from Ennersdale on the main line, 178 miles from Durban and 107 miles from Maritzburg. It lies at an elevation of 3,354 feet above the sea level. The climate is very bracing, and it is one of the nearest points to some of the fine scenery of the Drakensberg. There are also settlements (not irrigated) at Varkensfontein, in the Estcourt Division of Weenen County, and Eendvogel Vlei adjoining the Town lands of Ladysmith, and at Dundee. The farms are suitable for general farming, but most of them have now been taken up.

THE SOUTH COAST SETTLEMENTS.—Turning now to the South Coast of Natal, we find several large prospective settlements which we will glance at in turn.

1.—Oribi Flats.—These comprise a large block of land in Alfred County which has been sub-divided into 28 farms of from 700 to 1,200 acres in extent. The land lies at an elevation of probably 1,700 to 2,000 feet, and is situated some 30 miles from Port Shepstone. It is somewhat distant and out of the way, but a road to connect the Flats with the main road from Port Shepstone is now in course of construction, and now that the road is in

prospect the farms are being applied for. Fifteen have already been allotted and there are requests for several more. The prices at which the farms are offered vary from 10s. to 23s. 6d. an acre. Generally apeaking, the soil is of a sandy character, Wattles and mealies are being extensively grown, and the district bears a good reputation for stock-farming. Port Shepstone is distant from Durban 79 miles. Considering the distance from markets the lands are being well applied for.

2. The Umtamvuna Lands.—These lands are in Alfred County on the Southern border of the Province. They have been subdivided into 33 farms varying in area from 129 to 1,550 acres. The lands extend inland from the sea-shore to an elevation of 900 feet. Thirteen farms have already been allotted and 20 are still available for application. A road is being continued from Port Shepstone, which is 35 miles distant. Enquiries for the vacant farms are now coming in, and it is probable that the settlement will fill up at an early date. The lands have been valued at from 10s. to 20s. an acre. The country is healthy and the crops grown consist of fruit, mealies, wattles, and fibre.

3.—The Umtwalumi Lands.—This is a large block of 6,500 acres of land on the South Coast, about 18 miles from the railway station at Umtwalumi. The lands have been divided into 18 farms of from 231 to 617 acres in extent. Owing to the distance from the railway and the want of a road, these farms have not received much attention. Eleven lots have, however, been taken up. A road is now being constructed, and upon completion the settlement will be in touch with the railway, and it is probable that applications will soon be made for the remaining sub-divisions. The prices vary from 12s. 6d. to 32s. 6d. an acre. The lands are broken in contour, but there are some rich lands covered with bush. The elevation is probably from 700 to 1,500 feet. The distance from Durban to Umtwalumi station is 56 miles. The upper ranges are excellent for stock, while on the lower lands all coast fruits and products can be grown. Sugar cane can also be grown on low-lying lands.

WINKLE SPRUIT, MIDDLETON, LITTLE AMANZIMTOTI, AND ILLOVO RIVER SETTLEMENTS.—The farms comprising these settlements are small holdings, ranging in size from 9 to 50 acres, and practically all of them have now been taken up. Taking these settlements as a whole they form quite an unique instance of "closer settlement" in Natal, and probably in the whole of South Africa, and constitute an experiment of a somewhat bold character. Few people are aware of what is being done there, and a visit will repay anyone. A drive up the valley will reveal the progress that is being made, but to be able to see the beauty of the place a ride along the ridges from homestead to homestead is the better plan. That there may be changes before full success is achieved is certain, but this should not dishearten, as probably in no part of the world where land is allotted do the original allottees remain unchanged. Some fail for want of sufficient capital, some for want of experience—and so it will be with those—but the settlement progresses. The price of the lands was from £4 to £8 an acre for the larger lots, and £10 an acre for the nine-acre holdings. The settlers on these lots have the advantage of the proximity of the Government Experimental Farm at Winkle Spruit. At this farm the agriculturist can obtain advice as to what grows best on different soils and can see the crops growing. He can obtain seeds and plants and get information at any time ; and the nearness of the farm should thus be an important factor in the success of the settlements. The settlements should have every chance of success, as they possess good soil, water and roads, are near to the railway, and are not far from Durban, and lastly they enjoy a good climate and great beauty as regards scenery.

On the North Coast we find the NONOTI MISSION LANDS, situated in the Lower Tugela Division of Victoria County, between the Nonoti and Tugela rivers. These lands have an elevation of from 1,000 to 1,500 feet and the rainfall is ample. They are fairly well watered by streams, and some of the farms have a frontage on the Nonoti River. The land is broken and of varying quality, and does not offer facilities for cultivation in large fields. Settlers, therefore, can scarcely look to the cultivation of one staple product, but must devote attention to varied farming, according to the capabilities of their land. On each farm there is to be found an excellent site for a homestead, and a certain acreage will grow good fruit trees, and



Making Fruit Boxes.

with fruit, mealies, garden produce, stock of all kinds, fowls, pigs, etc., a living should be be made, but there is no one product which can be grown to suit the different kinds of soil to be found on each farm.

On the upper farms tea and wattles will do well, while certain portions of the lower lots will be found suitable for sugar-growing, and the terminus of Mr. Colenbrander's tram-line is not so far away as to render the idea of growing sugar-cane for the Darnall Mill impracticable.

The settlement is eminently one which requires farmers who can do a little of everything, and make their annual income from a dozen different sources.

Next we come to the SUGAR LANDS OF ZULULAND, which were thrown open for settlement in 1905. They consist of lands along the Zululand Railway from Mandini to the Umlalazi River, from which river—a distance of some eleven miles—lies a block of unsurveyed and unclassifed land of some 9,000 acres in extent. This land will be divided out if applied for, but at present, with land of more known quality to be had, it has not attracted much attention. At Umlalazi Station the good sugar lands commence again and extend some ten miles to the Empangeni, which is the limit of the land in respect of which the Government has entered into an agreement with Sir Liege Hulett to erect sugar factories, one of which is already completed and at work at Amatikulu, and another is now in course of construction. The progress made in this district of Zululand is little short of marvellous, and must be quite unprecedented in the annals of land settlement of Natal, and would form a good record for any county.

LANDS WITHIN AGREEMENT AREA.—The first farms were taken up in 1905, but very little could be done in that year beyond erecting buildings and preparing the land for planting in 1906. The Native Rebellion, which occurred in the latter year, unfortunately took place during the planting season. It drew a lot of the settlers away for service in the Militia, and it was wonderful such an area of land was planted in that year as has proved to be the case. In 1908, when the cane planted in 1906 was ripe, 1,428 acres of cane were cut and sent to the mill. Besides the acreage harvested, it is certain that a lot was used for planting purposes, and as there would be wastages from other causes it may be estimated that probably the total acreage planted in 1906 was not short of 2,000 acres.

Before the settlers recovered from the effects of the Rebellion, East Coast fever was upon them, and to-day there are very few cattle left on the Zululand Coast farms. However, by

the assistance of the Government steam ploughs, and the purchase of mules and donkeys by settlers, the position was so far met that by the end of 1908 the area of sugar-cane in Zululand had increased to between 6,000 and 7,000 acres.

It was soon realised by men connected with the sugar industry in Natal that cane grew better in Zululand than it did in Natal, partly because of its virgin soil, but chiefly on account of the climate, every mile nearer the tropics being a factor in the growth and sugar contents of the cane. Lands were taken up freely, and the following figures are eloquent of the present flourishing condition of Zululand and of its promise for the future.

By the end of 1908 the following lands had been allotted and were mostly occupied :—

47 First-class Farms, totalling ...	...	20,604 acres.
29 Second-class Farms ,, ...	...	20,811 ,,
28 Third-class Farms ,, ...	...	27,150 ,,
GRAND TOTAL ...		68,565

Area under cane cultivation ...	...	6,358 acres.
Area of cane cut in 1908 ...	...	1,428 ,,
Tons of cane, per acre ...	...	29·3
Tons of sugar, per acre ...	...	2·18

These averages, of nearly 30 tons of sugar-cane and 2·18 tons of sugar per acre, would be satisfactory in any part of the world, and far above any results obtained in Natal. From Mandini to Ginginhlovu, a distance of some 16 miles, the railway runs through almost continuous sugar-cane fields and the comfortable homesteads to be seen on the knolls testify to the confidence of the farmers in the industry.

From Umhlatuzi Station again on beyond Empangeni, some six or seven miles, many homesteads and cane fields are seen from the railway, although the bulk of the cultivated ground is at some distance on the alluvial flats of the Umhlatuzi River bordering on the large lake or lagoon, which exceeds the bay of Durban in size. The 47 first-class farms, of an area, in round figures of 20,000 acres, will, it is estimated, have at least 15,000 acres under sugar-cane in a few years. The 29 second-class farms, comprising 21,000 acres, will probably carry sugar-cane on at least 12,000 acres, and the third-class farms, totalling 27,000 acres, will certainly have 10 per cent sugar land. Altogether nearly 30,000 acres are fit for sugar cultivation, and it will not be many years before they are covered with sugar-cane, To this must be added the sugar area of some farms still unallotted. At any rate the position will ultimately be that 15,000 acres of cane of two years' growth will be yearly ready for the factories, besides the large area of canes of one year's growth, so that within the limits of the land covered by the agreement entered into with Sir Liege Hulett an annual crop of 30,000 tons of sugar may be looked for from the present cane area in Zululand.

This tonnage of sugar will represent a gross money value, with by-products, of £500,000.

LANDS OUTSIDE THE AGREEMENT AREA.—Immediately beyond the Empangeni and lying between the Ukulu River and the Insese Lake there is a block of some 25,000 acres of land, portions of which are admirably suited to the cultivation of sugar-cane. The lands have been sub-divided into farms of from 400 to 500 acres and almost all the farms have now been allotted.

Some of the farms lying between the station and the magistracy at Empangeni have excellent grass lands.

Further up to the coast, at a distance of some 30 miles, the Umfolozi is reached. On the south bank of the river there is a large alluvial flat, estimated to be of an area of at least 25,000 acres. This land will undoubtedly prove to be the equal for sugar cultivation to any land in Zululand. It is attracting attention, and a number of applicants have already been definitely passed for blocks of from 500 to 600 acres. There is no doubt that this land

would be very largely applied for were it not that it bears a bad reputation for malarial fever, but men will always be found who are prepared to accept risks if they can obtain land which is suitable for sugar-cane. There can be no doubt that this large alluvial flat is one of the picked spots of Zululand, and a man could look forward to making much more than a living out of it, so that it is tolerably certain that this fine stretch of cane land will gradually come under cultivation, the planters intend either to chance getting their cane crushed at the factories arranged for within the agreement or to put up machinery for themselves.

Besides sugar-cane, which will probably always prove the staple crop of the Coast lands of the Province, there are large areas of land which are suitable for afforestation and mixed farming. The Government Experiment Station immediately opposite the Empangeni railway station will prove of immense value to settlers in Zululand; many experiments in different products are in hand, and it is certain that, as a result of experiments at this institution, many enterprises will be started. Again, between Empangeni and the alluvial flats on the Umfolozi River already mentioned there is a block of land lying on either side of the railway of some 80,000 acres in extent. These may be termed the Kwambonambi lands, they are almost exclusively grazing lands and must wait for development until the country is free from East Coast fever, although applicants therefor are now before the Land



1.—Wattle Farm *2.—Vegetable Exhibit*

Board. The lands are open for selection by settlers, and are offered in blocks not exceeding 2,000 acres each in extent. The lands are generally flat, the soil is of a sandy character, and it is claimed that it will carry stock the whole year round.

The elevation above sea level is some 200 feet, and the distance from Durban is about 140 miles.

There is some malarial fever, but it will probably not be so severe as in the river valleys to the north and south.

THIRD-CLASS LANDS.—There are a few third-class farms on the coast of Zululand in respect of which there is no obligation in regard to the cultivation of sugar-cane. In addition, third-class farms have been laid off in the neighbourhood of Eshowe, at the Qudeni (Nkandhla) and at Nqutu. The farms in the vicinity of Eshowe are principally suited to the cultivation of mealies and sweet potatoes, and for stock, while those at the Qudeni and Nqutu are essentially stock farms. There are now available one third-class farm near Mandini Station, 53 at Eshowe, and 11 at Qudeni. All the farms at the Nqutu have already been taken up.

Provision has been made for the conversion of all third-class lands in Zululand from leasehold to freehold. The farms have already been valued, those at Eshowe ranging in price from 10s. to 15s. an acre, and those at Qudeni and Nqutu from 10s. to 12s. 6d. per acre. Of the 70 farms which were laid off in the Umhlatuzi Valley (on the main road between Eshowe and Melmoth) only six so far have been allotted. The majority of the lots which have been valued at from 10s. to 15s. an acre, contain excellent soil, but the district is a malarious one, which no doubt accounts for the farms not having been more extensively applied for.



NYMPHÆA (probably *N. madagascariensis*), Water Lily, Native of Natal



MINING IN NATAL

CHAPTER XVIII



THE following interesting details, on "Mining in Natal," were supplied in 1910 by Mr. C. J. Gray, late Commissioner of Mines, Natal :—

COAL.—Though seventy-one years have passed since the British Government first recognised the possible importance of the newly-discovered coal in Natal, little more than twenty years ago Natal had no collieries worthy of mention and imported coal from oversea. The imports—which reached their maximum of 16,932 tons in 1899—may be said to have ceased in the following year, though during the recent War, importation was temporarily resumed.

Since 1889, when 25,609 tons, worth £12,805 at the mines, were produced, the coal output has rapidly but steadily increased, until, for the year 1909, it became 1,786,568 tons, valued at £633,604.

The tonnages from each of the important collieries were :—

Colliery	*Tons (2,240 lbs.)*
Natal Navigation	300,797
Elandslaagte	194,393
Durban Navigation	164,198
Dundee...	148,220
St. George's	145,860
South African	144,953
Glencoe (Natal)	132,313
Natal Cambrian	125,937
Talana	97,999
Newcastle	77.004
Hlobane	64.373
Natal Steam	61,624
Ramsay	42,019
Hatting Spruit	40,908
West Lennoxton	22,031
Ballengeich	13,381
Other Collieries	10,558
	1,786,568



Natal Colliery

In February, 1910, the last completed month before the date of writing, the total output was 184,112 tons.

For many years the output has exceeded the Natal coal consumption, and now the shipping trade is much more important than the local market.

During 1909, 1,391,836 tons, being 77·9 per cent. of the total output, left Natal. The amount included 404,322 tons exported by sea; 152,018 tons exported overland and 835,496 tons bunkered by vessels calling at Durban.

Though, unfortunately for shareholders, the recent expansion of trade has been gained partially by considerable reductions in prices, colliery companies paid £58.962 in dividends during 1909, an amount equivalent to 8·22d. per ton of coal extracted.

The principal coalfields are: The Klip River (approximately 1,650 square miles in area), the Utrecht and Vryheid (approximately 550 square miles), and the Somkele or Zululand (area doubtful). There are, in addition, several smaller and less important coal-bearing areas.

While the seams are approximately horizontal on the Klip River, and Utrecht and Vryheid coalfields, they are tilted on the Somkele field.

The coal worked is generally between three-feet and six-feet thick, but usually there are two seams in the same colliery. Near Dannhauser and Hatting Spruit they are so close together that they are sometimes worked as one. At Somkele the coal is about 40 feet thick.

Until the seams have been proved more thoroughly by boring and other methods, and have been carefully surveyed, estimates of the quantity of workable coal must be very crude, but a few years ago, working from the data available, it was estimated that at least 280,000,000 tons of semi-bituminous coal, similar in quality to that now sold, could be extracted from the ground which had been practically proved; and that the total amount of available coal, including anthracitic coals and allowance for coal areas partially proved, was at least 1,500,000,000 tons, and probably much greater.

Except on the Klip River field even the outcrops are almost untouched, but on that field the time of the outcrop mine is passing. In the past year 95 per cent. of the output was raised through vertical shafts. The deepest shaft is that at the Cambrian Colliery, which is 700 feet deep.

Except the Zululand Colliery on the Somkele field, at which the output stopped about the middle of the year, and the Hlobane Colliery on the Utrecht and Vryheid field, all the important collieries producing in 1909 were situated on the Klip River field. Though their distances from the port of Durban vary from 168 miles for the Zululand Colliery to 310 miles for the Hlobane Colliery, most of the coal travels about 240 miles.

Bituminous, semi-bituminous, and anthracitic coals are all found in Natal collieries. As much coal—which would otherwise have been semi bituminous—has been made anthracitic by heat from igneous intrusions, two or more classes of coal sometimes occur in the same seam and even in the same colliery.

A few typical analyses of coals as sold in bulk are given. They are selected from the series of analyses made by the Government Chemist of coals taken while in transit on the Railway, by the Government Coal Testing Committee, 1904-1905.

	Elandslaagte P. & N. Co. Ltd.*	Natal Navigation	Durnford Navigation	Newcastle
ANALYSIS.	Per cent.	Per cent.	Per cent.	Per cent.
GENERAL.				
Moisture	1·00	1·16	1·50	2·60
Volatile Hydrocarbons	22·54	19·90	29·06	28·96
Fixed Carbon	56·90	67·82	57·63	56·10
Sulphur	1·60	1·58	1·20	1·23
Ash	18·50	10·08	11·02	11·52
ORGANIC CONSTITUENTS.				
Carbon	65·91	78·12	69·16	65·26
Hydrogen	4·05	5·20	4·56	3·72
Nitrogen and Oxygen	8·94	6·60	12·56	15·67
Specific Gravity	1·427	1·342	1·363	1·388
Calorific Power (lbs. of water evoporated per lb. of coal), as estimated by Thompson's Calorimeter	13·32	13·80	14·46	14·34

* The Elandslaagte Company's output is now obtained from another and newer pit.

NOTE.—The Calorimeter results given are those obtained by means of a Thompson's Calorimeter, standardised so as to indicate an evaporative power of 16 lbs. of water per lb. of coal, for a Welsh coal of the best quality.

The tests made by the Committee just mentioned showed that, while the evaporative efficiencies of Natal coals were inferior to that of the best Welsh coal, several Natal coals when burnt in the furnace of a suitable boiler produced steam at a greater rate than Welsh coal.

That Natal coal is of good quality is, perhaps, amply shown by the growth of the shipping trade, but attention may be drawn to an interesting comparision made in the year 1900 with British coal. In that year, during the War, when locomotives on the Natal railway used 49,403 tons of imported coal and 51,265 tons of Natal coal, it was found that the consumption per train mile was 72·39 lbs. with imported coal and 72·18 lbs. with Natal coal.

As Natal coal seams are not so clean as many British seams, the quality of the coal placed on the market is attained by careful treatment at the collieries. Picking belts, which slowly carry the coal past lines of sorters who remove pieces of shale or splint coal, are used at each colliery ; and at several collieries washing plants, which taking advantage of the difference in specific gravity of coal and shale, wash the coal away from the shale, and treat the smaller sizes of coal, for which hand picking is economically impracticable.

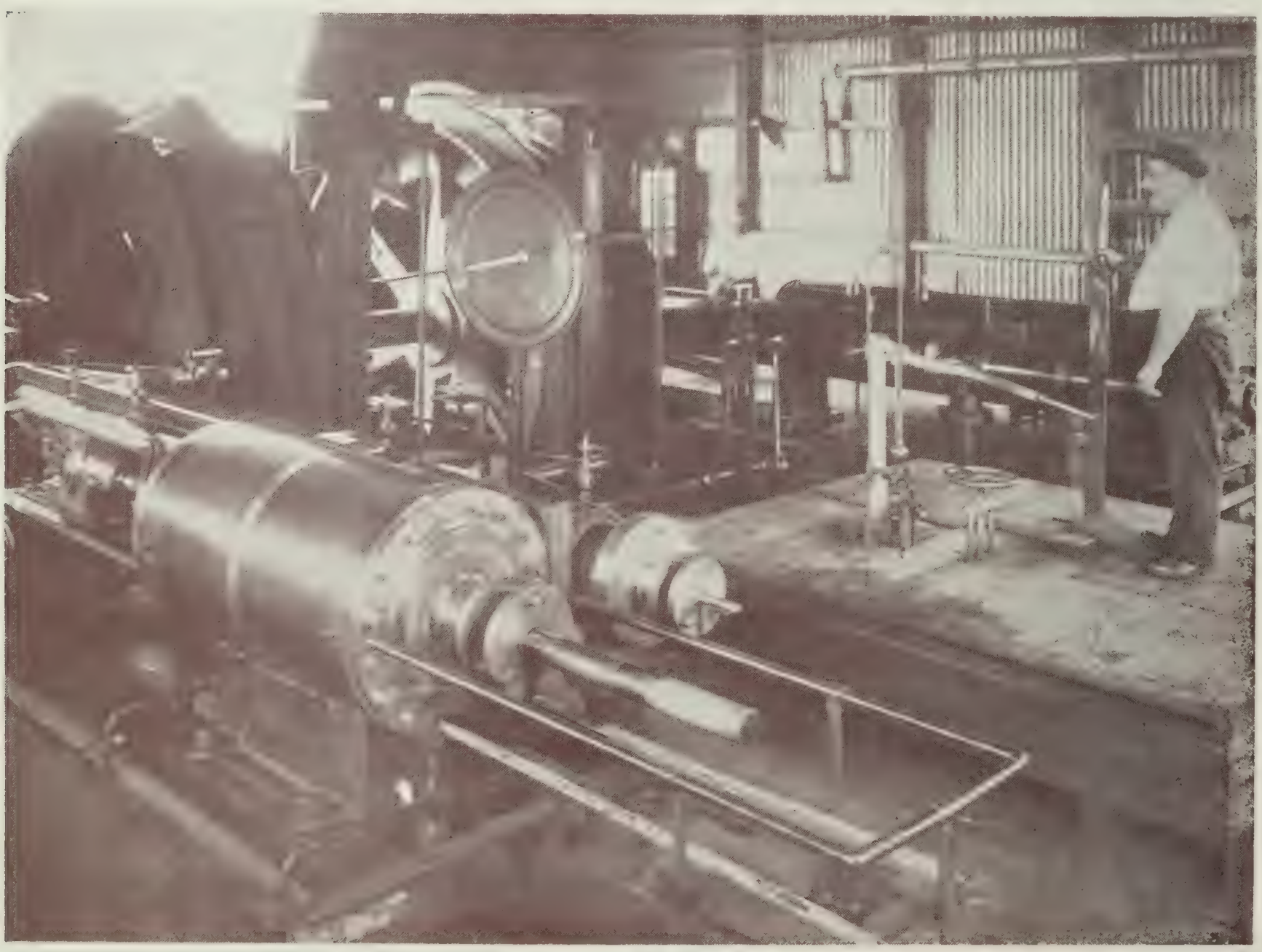
Owing to the care taken in cleaning the coal from shale and dust, much of the material raised through shafts goes to form the large waste dumps which are prominent in views of collieries.

Though there are a few examples of double stall, single stall, and longwall working, the usual method of working the coal seams underground is that known as the " pillar and stall." In the "pillar and stall" system the seam is traversed by a network of passages, or stalls, intersecting at right angles, and surrounding rectangular pillars of coal. In the early days of Natal coal mining, those pillars were often so small that they became crushed and weathered and that their extraction was impracticable, but now large pillars are left in the first working and subsequently removed almost completely. In pillar extraction successive "lifts" or slices are taken off the pillars, the roof being temporarily supported by timber as each lift is removed, and then allowed to drop as the timber is withdrawn. As in many of the collieries large areas are blocked out into pillars great quantities could be produced at low immediate cost.

The roofs in Natal collieries are generally fairly good; some are very strong, but usually a certain amount of timber is necessary. The floors are always good; the bulging up of the floor known as "creep" in British collieries, is, as yet, almost or quite unknown here.

Though low-paid ignorant coloured labour is employed, the amount of up-to-date machinery used, both above and below ground, at Natal collieries is remarkable. The growth in use of such machinery is reflected by the growing production of coal per man employed, though increasing care is taken in cleaning the coal to be placed on the market. Thus the production per man employed at producing collieries, which was 119 tons in 1899 had grown to 209 tons in 1909.

In many collieries mechanical coalcutters, some driven by electricity and others by compressed air, are used to undercut the coal before it is blasted down. In 1909, 62 per cent of the total output was mechanically undercut. While machines of the percussive type cut the coal by a reciprocating chisel, others carry cutting-teeth on revolving bars, revolving wheels or more commonly on moving endless chains.



Winding Engine



Coal in transit to Coast

Mechanical haulage underground is widely adopted, endless rope haulage, in which the coal trucks are drawn slowly along by a wire rope, which drops into a jockey or grip on the top of each truck, being the most common system. Electric locomotives are sometimes used.

Partly to save labour, but partly also because of local natural conditions, explosives are used more freely for coal getting than in Great Britain.

The surface works, pit-bottoms, and main roads of several collieries are lighted by electricity, but though a few collieries are sufficiently free from firedamp to allow use of open oil lamps and candles, other lighting is generally effected by safety lamps.

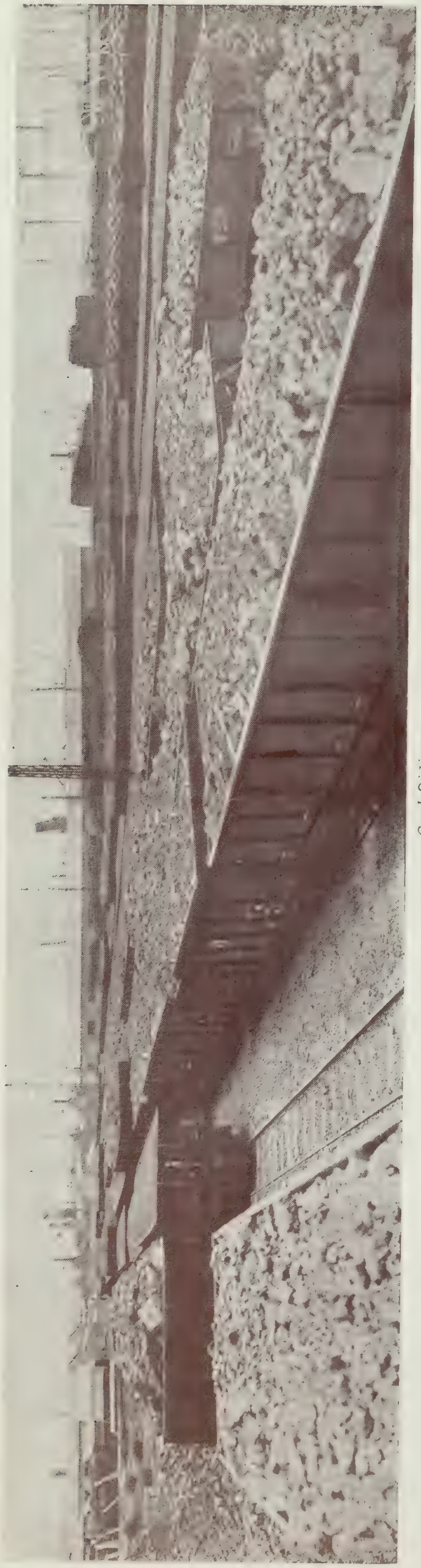
Coloured workmen, who are nearly all South African natives, Indians imported from India under indenture, or Indians whose indentures have expired, do almost all manual work in and about the collieries; they also attend to engines and mechanical coalcutters, and do other work which would not ordinarily be considered manual. Europeans do such responsible work as shot-firing and prop-withdrawing, but mostly are employed in supervision of coloured labour. Winding engine-drivers, mine mechanics, carpenters and clerks are generally Europeans.

The various coalfields of Great Britain are represented among the men, but Scotchmen are most numerous. Though in recent years an increasing tendency to employ men of South African birth and British or Dutch descent, has been observed, the number of South African miners is still small.

Almost invariably, both white and coloured employees live at the collieries in buildings provided by the owners. Coloured labourers are now, largely owing to the influence of the Health and Indian Immigration Departments, housed in buildings far superior to those in use some years ago. Though at some collieries there is room for improvement, good accommodation for Europeans is usually provided.

Owing to the class of labour employed it is natural that the accident death rate is higher than is usual in European-worked mines, and is, like the accident death rates in the collieries of the United States and of the Transvaal, generally about 3·5 per 1,000 employed. In the United Kingdom the rate is about 1·3 per 1,000. Occasionally a firedamp or coal dust explosion has greatly swollen the Natal accident rate:—thus in 1908, when 77 men lost their lives in the Glencoe Colliery explosions, the death rate in collieries rose to 10·98—but usually, as in other countries, most lives are lost from falls of roof or mineral.

In the year 1909 the average numbers of Europeans, Natives and Indians employed at the collieries were—Europeans, 431; Natives, 4,700; and Indians, 3,409. Women are not employed except at a few collieries where Indian women work at the picking belts, the average number being 94.



Coal Sidings



Coaling Appliances



Coal in transit

MINERALS OTHER THAN COAL.—The Natal output of minerals other than coal is small, but is growing. The figures for the year 1909 were :—

Gold	1,595	ozs. (fine)
Copper { Picked ore / Cement / Concentrates } ...	37½	tons.
Phosphate rock...	343	"
Limestone	1,357	"
Fireclay	493	"
Silica	235	"
Pigments	80	"
Kaolin	5	"
Asbestos	6	cwt.

The average number of persons employed in prospecting and mining away from collieries was 577.

That the values of produce and numbers of men employed have grown recently is shown by the following table :—

	1903	1904	1905	1906	1907	1908	1909
Approximate value at the mines of minerals other than coal...	£290	£180	£760	£320	£4,140	£2,438	£7,620
Number of men employed in prospecting and mining, not at collieries	167	164	372	324	466	493	577

In January and February, 1910, the output of gold alone was worth £3,790, equivalent to £22,740 for the year. Since then other mines have started crushing.

GOLD.—Though until recently gold mining in Natal has not been profitable, much interest has been taken in gold prospecting and mining. Gold has been found in several districts, and in most of the geological formations in Natal, and the areas often called goldfields, are indicated below.

Swazieland Schists	Tugela Valley near the Buffalo and Tugela Junction. Lower Insuzi, Nkandhla District. Melmoth. Nondweni.
Granites, Gneisses and Gabbros ...	Umzinto. Mpapala, Eshowe district. Tugela Valley, Western side, about ten miles below Buffalo Junction.
Banket Formation (? Witwatersrand)	Upper Insuzi, Nkandhla District. Umhlatuzi, Nkandhla and Entonjaneni districts. Denny Dalton, Vryheid District. Pongola Valley, " "
Table Mountain Sandstones ...	Victoria County.

The gold-bearing deposits are mostly quartz reefs, but some schists and altered dykes in the Swazieland series, and some bankets and sandstones in the banket formation and Table Mountain sandstones contain gold.

None of the banket reefs are at present (March, 1910) producing. Gold-bearing quartz, or schist, is now being milled at the Wonder Mine in the Pongola Valley: the Vira Mine, Melmoth; the Dumisa Mine, near Umzinto; and the Tugela, S. & M., and Phœnix Mines in the Tugela Valley.

At present the Wonder and Vira Mines are of most interest.

Work at the Wonder Mine has been very successful. The five-stamp battery which commenced crushing in August, 1909, has in six and-a-half months treated 3,280 tons, yielding 2,085 ozs. of fine gold, over the plates. A dividend of 55¼ per cent. was paid to shareholders out of profits gained by the end of December.

The gold-bearing deposit at the Vira Mine is a recently discovered belt of talcose and chloritic schists. The first crushing was made in December, 1909. The 536 tons crushed up to the end of February gave 182½ ozs. of fine gold over the plates.

COPPER.—Many copper deposits are known, but the ores produced have been little more than samples. The cost of transport is particularly important to base metal mines, and, unfortunately, all the known copper deposits of any promise are away from railways.

While quartz veins, containing copper pryites and the richer sulphide ores such as copper glance and erubescite are the most common deposits, there are other types.

In the Dania Mine, Nondweni, a mixture of iron pyrites, copper pyrites and zinc blende with little quartz, forms a great portion of the deposit, but in places the sulphides have altered to a soft black, soot-like copper containing material.

In the Nkandhla district native copper and copper sulphides occur distributed in an altered syenite. A sulphide vein in that rock is being developed at a property situated by the Umhlatuzi River.

Schists containing disseminated copper sulphides and native copper are met with in several places.

IRON.—Small deposits of iron ores are very common, but though they served the purposes of the natives, whose workings are found in all parts of the Province, most are of no economic interest at the present day. Some large deposits are, however, known.



Coaling a Liner

Surface ironstone is widespread, and though it is of low grade and variable character, it is in places worthy of attention. A bed of fairly high-grade magnetic iron ore found near the De Jager's Drift on the Buffalo River, and other localities in the Natal Coal Measures is, however, more important.

Attention has been also given to the huge beds of magnetic quartzites and the siliceous iron ores which are found in some of the older rocks.

Attempts to smelt iron on a small scale are being made at Sweetwaters, near Maritzburg. The ore used comes partly from the hydrated outcrop of a bed in the Natal Coal Measures, which may possibly, where unweathered, prove to be the magnetic ore bed above-mentioned, and partly from other outcrops and surface deposits.

LIMESTONE.—Lime derived from decomposing igneous rocks having been deposited in subsoils, limestone is, like iron ore, widely distributed in surface deposits. Where lime-bearing waters fall over ledges, and partially evaporate, limestone of similar character, but generally less impure, is formed.

On the Umzimkulu River near Port Shepstone, in the Lilani Valley in Umvoti County, and on the Eastern side of the Tugela Valley, Nkandhla District, limestones in larger bodies and of a different class are found in the older rocks of Natal. They are generally crystalline, and often—but by no means invariably—contain much magnesia and silica. They have not been examined sufficiently to locate and determine the extent of the purer portions of the immense masses. Unfortunately, as cheap transport is impracticable, the Umvoti and Tugela occurrences are quite unworked.

For a good many years some of the white magnesian crystalline limestone on the Umzimkulu, and the secondary non-magnesian surface limestone overlying it, have been burnt into lime. The work has been intermittent and on a small scale, the output of lime for the past two years being 1,450 tons only, but arrangements are now being made to develop the business.

Lime from a surface deposit near Weenen is being sold in unburnt form for agricultural use.

PHOSPHATES.—Within the last two years mineral phosphates have been discovered in several places. They occur as nodules and thin beds in the upper portion of the Ecca shales, and the lower portion of the Natal Coal Measures. Near Weenen, where they were first found, they have had most attention. There they have been prepared for agricultural use by very fine grinding, as the mineral generally contains too much alumina and iron to be suitable for superphosphate manufacture. During the last six months of 1909 the newly-erected Weenen mill ground 343 tons of the mineral, which was subsequently sold at £2 10s. per ton.

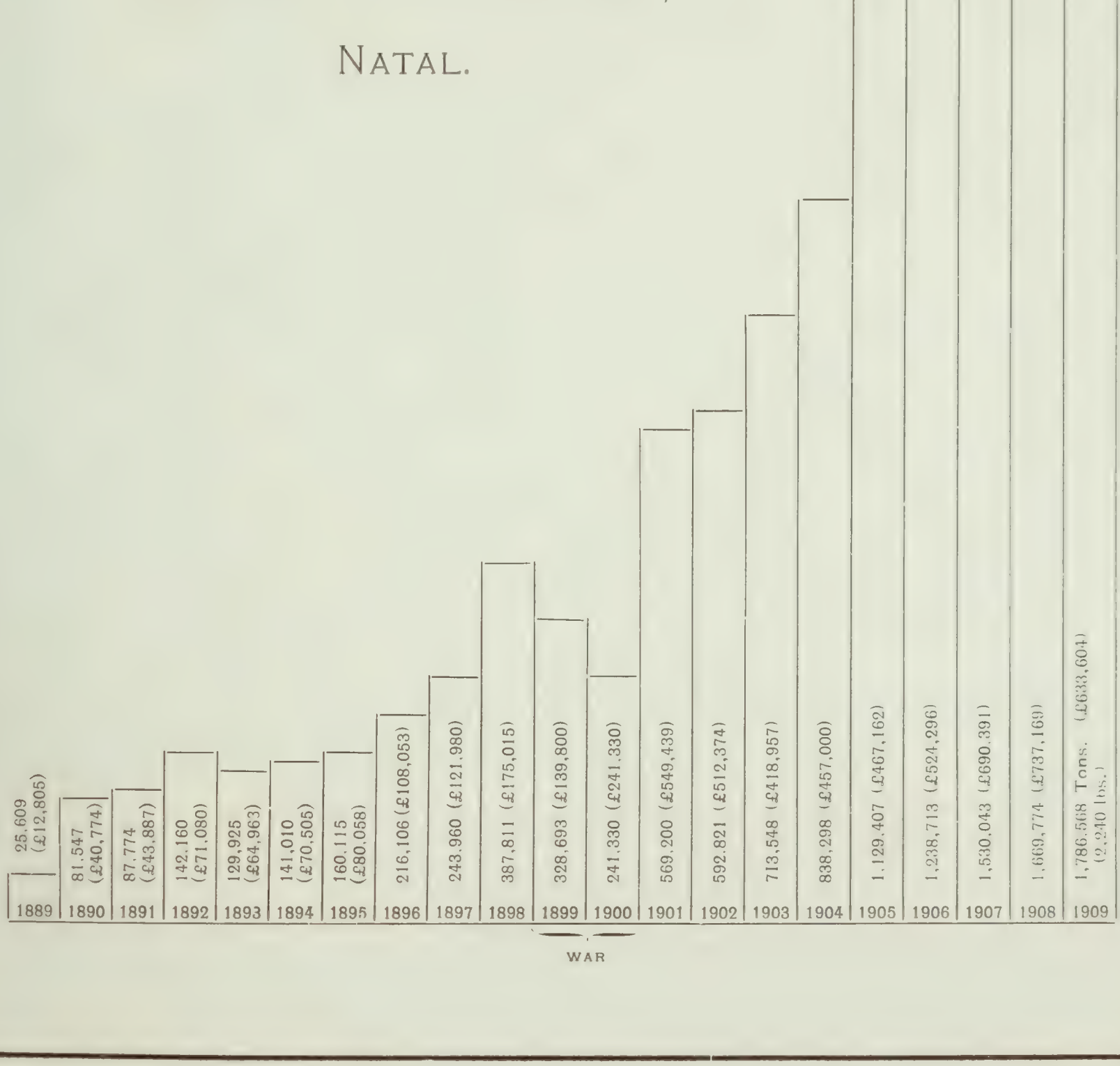
OTHER MINERALS.—Mention must suffice for the more important mineral deposits of other minerals. They are : Asbestos in serpentine at Sitilo, Eshowe district ; China clay, massive, at Padleys station on the boundary of Pietermaritzburg and Durban counties, and in felspathic sandstone near Edendale, Pietermaritzburg County ; chrome iron ore in serpentine on the farm Tugela Randt, 12 miles from Krantkop, Umvoti County ; fireclay beds at Gezubuso, Pietermaritzburg County, and Frasers, Victoria County ; graphite (flake) in crystalline limestone, Umzimkulu Valley, Alfred and Alexandra counties ; ochres, and similar pigments, near Alverstone, Pietermaritzburg County ; and tinstone in altered pegmatites, Umfuli Valley, Entonjaneni district.

The details which have been given show that coal mining is a settled and flourishing industry, and that some other branches of mining may soon be firmly established.



Coking Plant

Diagram shewing the Annual Output of Coal, Natal.





Collection of Zulu-made articles

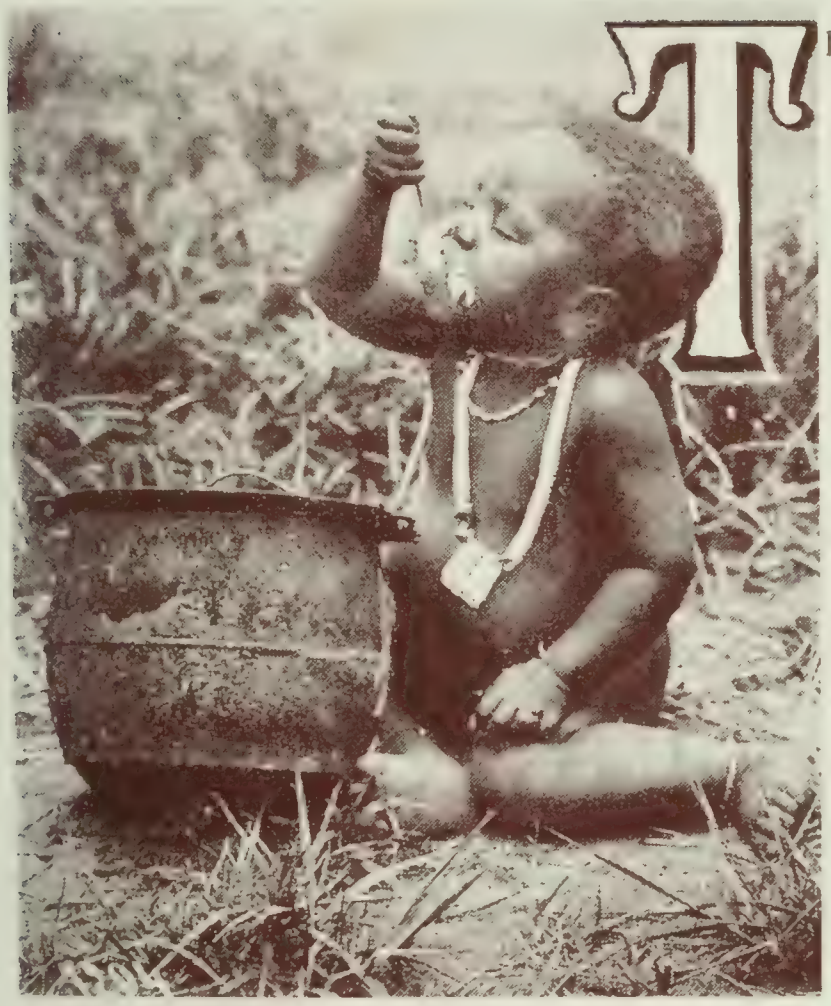


NATIVES AND INDIANS

CHAPTER XIX

I.—THE ZULUS

BY J. STUART



THE Zulus, an important branch of the Bantu family, live chiefly in Zululand and Natal. The tribes, from which the nation was subsequently formed, appear to have come down to Zululand from the north, possibly Central Africa, upwards of 400 years ago. Their habits, customs, and ceremonies are, in many respects, extraordinarily like those of the ancient Jews, so much so as to give rise to a strong presumption that, at one time, they were intimately connected with that race.

They speak a euphonious language, said by philologists to be a member of the so-called Agglutinative or Turanian group, by agglutination being meant: "A method of formation whereby a modification of meaning or of relation is given to a word through a significant element or elements attached to it or contained in it." *

Their career as a nation began about the year 1815, when Tshaka set about to weld the various tribes of Zululand into one people—a task accomplished before he was assassinated in 1828. Politically-speaking, however, the Zulus ceased long ago to be an independent nation, the main causes being, firstly, their clashing with the Boers in 1838-39 when, owing to the defeat of Dingana and his being driven northwards after the battle of Blood River, Mpande crossed into Natal with the greater portion of the people and formally gave his allegiance to the Boers—thereby, as the Zulus themselves say "snapping the cord of their nationality"—and, secondly, the Zulu War of 1879, when the Imperial Government defeated and captured Cetshwayo and, in place of one, appointed thirteen separate chiefs to preside over the people, these again, in later years, being increased to over a hundred.

---

* Dict. of Philos. and Pysch. Baldwin, I. 25.

It would be impossible to estimate at all approximately the number of Zulu-speaking Natives outside Zululand and Natal. Many are to be found in the Transkeian territories of the Cape, in the Transvaal, Rhodesia, British Central Africa, and the Portuguese possessions on the East Coast of Africa. Those of Zululand and Natal alone would probably exceed 1,000,000.

The name "Zulu," which means "sky," was, not further back than a hundred years, confined to a small and insignificant tribe under the chieftainship of one Senzangakoni, occupying that portion of the White Umfolozi valley which falls between the Mahlabatina Magistracy on the north and that of Melmoth on the south. It was owing to the brilliant genius of Tshaka, a son of Senzangakoni, that the numerous tribes at that time living in what is now known as Zululand were, by degrees, and yet within a dozen years, formed into a single, compact nation, by far the most powerful in South Africa. Because Tshaka belonged to the Zulu tribe—then, as it happened, tributary to the more powerful one of Mtetwa, occupying territory on the north-east coast of Zululand—the great nation he afterwards created came to be known as that of the Zulus.

The subsequent renown of the people excited public curiosity as to the origin of the tribe in question. Endeavours were accordingly made to trace its history further back than was customary even with larger tribes, with the result that the name was found to be derived from one Zulu, son of a certain Malandela, who flourished in Zululand probably during the sixteenth century. This son is said to have quarrelled with his elder brother Qwabe, who took exception to the former being presented by his mother with a certain white ox, with the result that Zulu left with his followers to occupy the White Umfolozi valley, whilst Qwabe went to live nearer the coast on the south side of the Umhlatuze River and in what is now known as Eshowe district.

It was with the help of the chief of the Mtetwa tribe that Tshaka, who was not the proper heir, became chief of the Zulu tribe. No sooner did he become chief than he began to build up an extraordinary military organisation, and to attempt what had never been attempted before, namely, to fuse the various tribes into a nation.



A Noble Setting [*Photo by Trappists*

Before, however, the Zulu nation came into existence, there occurred an incident of a comparatively trifling nature which, at a later time, was destined to exert an enormous influence on the political and social life of the people. Briefly, this is what happened: A young man, suspected by his father (the chief of a tribe) of plotting with others against him, was ordered to be put to death. Those alleged to be concerned with him were summarily dispatched, whilst he, thanks to his extraordinary smartness and agility, succeeded in jumping the outer fence of the kraal and escaping with a wound in his side. He subsequently strayed into far-off parts, dwelt for a time with this chief and with that, afraid less his father's emissaries should find him, and eventually came into contact with some European or Europeans. One theory is he travelled as far as Capetown and there had opportunities of observing the way in which British troops were trained. Another, and more plausible one, is that he came across an European, possibly Dr. Cowan—member of an exploring expedition under a Lieut. Donovan, that left Cape Town for the north in 1809—and from him acquired a knowledge of the manner in which Europeans recruited and organised their troops. Whichever of these theories is the correct one, it is certain he came into touch with European ideas, for after wandering about for some years, he, on hearing of his father's death, decided to return home and by strategy to gain the position of chief in succession to his father. He went back mounted on a horse and armed with a gun, neither such animal nor such weapon ever having been seen in Zululand. The name of the wanderer was Godongwana, subsequently changed by himself to Dingiswayo (meaning "he who was made to wander"), and the tribe was that of Mtetwa—the one to which reference has already been made.

The rest is soon told. Owing to neither horse nor gun being known in Zululand, Godongwana was almost immediately regarded by the extremely superstitious folk of those days as the "king of witchdoctors," and he managed, with a little scheming, to depose his younger brother and get himself appointed in his place, the scar in his side clearly proving his identity.

Dingiswayo began at once to institute reforms, the chief one being the re-construction of the tribal army on lines possibly suggested by the hypothetical Englishman. He attacked the surrounding independent tribes one after the other. He was later on joined by Tshaka (then quite a young man), who, for various reasons, was unable to live in his father's tribe. Tshaka repeatedly distinguished himself during the wars then going on, and Dingiswayo was so pleased with his behaviour that, on Senzangakona's death, he assisted him to become chief of the Zulu tribe. Tshaka lost no time in building up a little force of his own on the lines recently introduced by Dingiswayo. He, too, began to attack and conquer neighbouring tribes, and eventually grew to be so powerful that, after Dingiswayo's death, he became paramount chief of Zululand, Natal, as well as over large parts of the Cape Colony and the Transvaal. His army rapidly swelled to formidable proportions—it numbered anything between 50,000 and 100,000 and was victorious wherever it went. It became probably the most terrible and powerful engine of war that had ever existed in this part of the world. The people became enthusiastic over everything military, whilst the warriors, intoxicated with their perpetual successes and the fruits thereof, became more daring and courageous, until every Native race of South Africa stood aghast at the ruin that had occurred, and which appeared still to be in store.

The main end Tshaka set before himself was to create a nation and to govern his creature by means of an army established to extend his sway north, south and west. This army he strove to make as effective as possible. He arranged his men into regiments according to age, caused each regiment to wear a distinguishing uniform, required every man to use but one (a stabbing) assegai, and they were to be ready to mobilize in a day or a night, and proceed anywhere at the shortest notice. Efficiency and mobility were the primary objects in view. Dingiswayo had previously carried his reforms a long way, but the ferocious and insatiable Tshaka, profiting by "The Wanderer's" experiences among strange peoples, soon surpassed anything that had ever been done in the organisation and training of a Native army. His force became like a swarm of bees (his last regiment, by-the-way, was called "The Bees"), able to mass and organize at once, as if automatically, and move swiftly to overwhelm and annihilate wherever the tyrant chose.



1.—Exterior of Hut *2.—Interior of Hut*

It was when at the very height of his power that Tshaka and his nation came, for the first time, into direct and continuous contact with European ideas, through the arrival at Port Natal of a little band of settlers, headed by Farewell and Fynn. Fynn was the first to arrive, and did so in May, 1824. He immediately got into touch with the great Zulu king and became his and his people's life-long friend. The white people were soon known far and wide as "the king's friends," and this friendliness has, I believe, continued down to the present day, the Zulu War and all other troubles notwithstanding.



Warriors in Uniform

Connected with Tshaka's military system, and an essential element therein, was his remarkable practice of absolutely controlling the marriage of every man and woman in the country. He went further and prohibited on pain of instant death all intercourse between young men and girls. It is apparent that, had he not prescribed and enforced stringent rules as to marriage, and forbidden the practice of certain loose though long-standing habits, he could never have made the army as mobile and as amenable to discipline as it was. The rapidity of his operations in every direction against the enemy, or what he was pleased to call his enemy, was amazing. Nothing like it was known before or since.

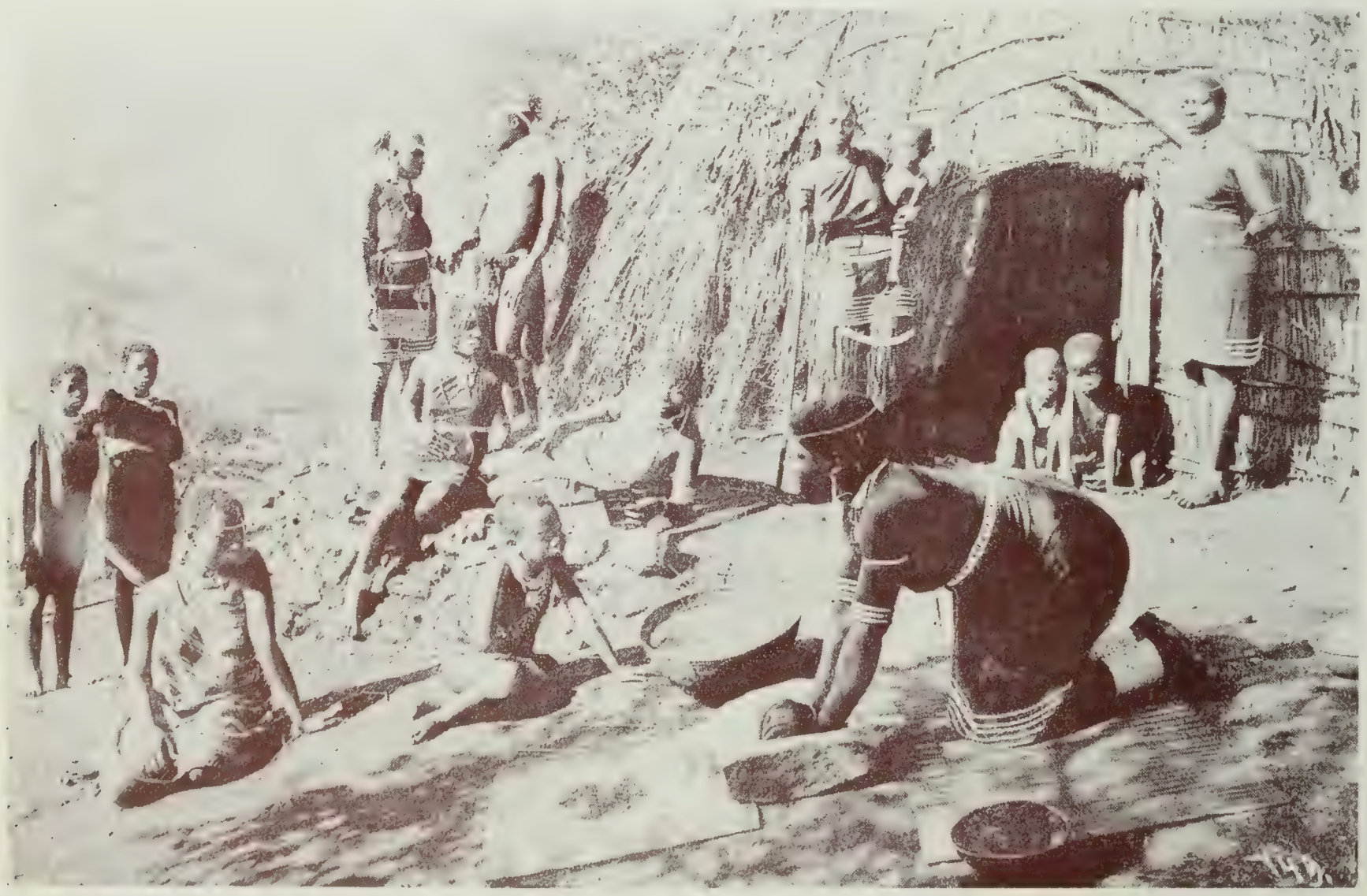
Tshaka was assassinated in 1828. Having no issue, he was succeeded by his brother Dingana who, after an inglorious reign and after being badly defeated by the Boers with the assistance of Mpande, was put to death by the Swazis on the Ubombo range early in 1840. Mpande, another brother of Tshaka, succeeded. He had escaped being killed by Dingana (who, besides being treacherous, set about to murder his brothers) as he was supposed to be "rather a fool." He died a natural death in 1873, his son, though not his rightful heir, Cetshwayo, then becoming king. During Cetshwayo's reign occurred the Zulu War of 1879, followed by the collapse of the Zulu power. Since Cetshwayo's death in 1884, Dinuzulu has been regarded by some as the leading representative of the Zulu royal house, whilst others hold that Manzolwandhle's claims to that distinction are stronger.

Having seen something of the early history of the Zulus, let us now pass on to consider a few of their more important beliefs, customs, and other characteristics.

They believe that the earth, moon, sun, stars, and indeed everything, was created by a Supreme Being called Mvelingqangi, *i.e.*, "The First Appearer," though there seems to be no idea as to within what period all these things were made.

There is a tradition to the effect that all people originally came from a single pair, and this pair sprang from a bed of reeds, but where such bed is to be found tradition does not say. At the same time, if pressed, a Zulu would probably locate it somewhere in the north, seeing a deep-rooted tradition of their having descended from that direction is widely prevalent, not only among them, but other allied peoples like the Basutos, Xosas, Swazis, and Tongas. A certain fairly well-defined section declares that its ancestors "rolled down from the north in a large basket (*isilulu*)."

Food, in the shape of mealies and pumpkins, was first discovered by a woman growing near the said reeds, after which people, by degrees, became acquainted with the other varieties.



Kraal Life (Photo by Trappists

It is believed that, in the very remote past, animals, birds, and monsters of different kinds were able to converse like men and women. This is proved by many interesting and even exciting nursery tales, in which animals, etc., are made to talk and behave like ordinary human beings. Some of the tales are about cannibals and thrilling adventures in connection therewith, whilst others tell of ghosts, baboons and *abatakati*, or those who practise the "black arts" to the fatal injury of others. It is customary for the tales to be told round the fireside by old women after dark and shortly before the children have to go to bed. Anyone telling them in daylight will, it is alleged, have horns growing out of his or her head, unless a certain doggerel be repeated with the object of warding off the threatened calamity.



Chameleon

The following is a tradition common to all Bantu tribes in South Africa. It is an account as to how death came into the world. In the beginning the Creator, Mvelingqangi, directed the chameleon to go off to the earth and proclaim to all men that there was to be no such thing as death among them. The chameleon left but, after going some way, came to a small shrub known as *ubukwebezana*, the berries on which it proceeded to eat slowly, one by one. In the meantime, the lizard, having overheard the Creator's order, hurried after the chameleon, and overtaking it, whilst still engaged eating the berries, passed on and, reaching the earth, announced the Almighty's will as being that all men *were* to be subject to death. Later on the chameleon came up and, when he had given out that men were *not* to be subject to death, people jeered at and cursed him on the ground that the previous contrary order was already being acted upon and could not be set aside by a later command. In consequence of this tradition, the chameleon is to this day teased or tortured, whilst the lizard is put to death for having been the bearer of bad tidings. An illustration of a South African chameleon appears on this page, the lizard referred to is the variety known by Zulus as the *intulo*.

Coming now to the more serious, everyday creed of the people, we find they have a very firm and deep-rooted belief in an after-life. As soon as a man dies, his spirit transmigrates and enters a certain, well-known species of harmless snake, called the *idhlozi*. These *amadhlozi* or *amatongo* are supposed to remain attached to the particular kraal or kraals to which the deceased belonged. They are the natural guardian spirits and protectors thereof, but it is incumbent on the living inmates of such establishments to constantly pray to, propitiate or sacrifice to them, the object being to prevent their becoming estranged and wandering off, leaving the kraal a prey to the machinations of *abatakati*. These *abatakati* are very numerous and their object is in every way to scheme and bring about the complete destruction of a kraal and all its inmates. They are devils incarnate, whilst the *amadhlozi* are the good spirits. *Amadhlozi* are often said to be "in need of food," for, being in the form of living creatures, it is natural to suppose they require food, otherwise they would be obliged to go off elsewhere in search of it. And so it often happens, especially when anything goes wrong at a kraal and an *isangoma* or diviner is consulted as to the cause, that he will



1.—Doctor operating

2.—Female Diviner and assistant

attribute the fact to disobedience or neglect on the part of the kraal head (for responsibility in such matters rests on him) to provide food, *i.e.* sacrifice, to his ancestral spirits. The sacrifices are usually in cattle or goats, and they may be made without reference to the diviner, especially when everything appears to be normal at his kraal. A peculiar practice in connection with these sacrifices is that the bones of the animals must all be burned to cinders, for fear lest an *umtakati*, who, being an evil-doer, naturally prowls about on dark nights with his baboons, and, when everyone is asleep, will get hold of one or more and use them in connection with his devilish designs. Such bones are supposed to be especially dangerous should they fall into these fiends' hands. Is it surprising then to find every kraal in Zululand and Natal provided with a dog, the more ferocious the better?

If one were to proceed to closely interrogate Zulus on these matters, he would meet with disappointment, as, apart from the definite belief that the soul lives after death and lives on earth in the form of a snake, their notions will be found to be extremely vague, incoherent, and undeveloped.

As soon as any affliction, such as serious illness, comes upon a homestead, the usual procedure is for the head to proceed at once, not to an ordinary medicine doctor, but to a diviner, who may also be a doctor. To requisition such a man's services, he being a person of distinction in the community, consulted alike by small and great, involves the payment of a fee, generally a goat or its equivalent. The diviner, or it may be a ventriloquist, then proceeds to put his art into practice and presently to communicate his decision. Such decision may take all sorts of forms, but whatever it be, the person consulting feels bound to carry out the instructions in every detail. It often happened, notwithstanding careful compliance with instructions, that the evil was not removed, in such case another diviner, perhaps a more famous one and living at a greater distance was resorted to.

The advice given by these "experts" was frequently no more than that a certain beast of a particular colour had to be slaughtered as food for the spirits who were angry because they had been neglected.

Connected with these beliefs, are those relating to rain-making.



Nature's Mirror [illegible]



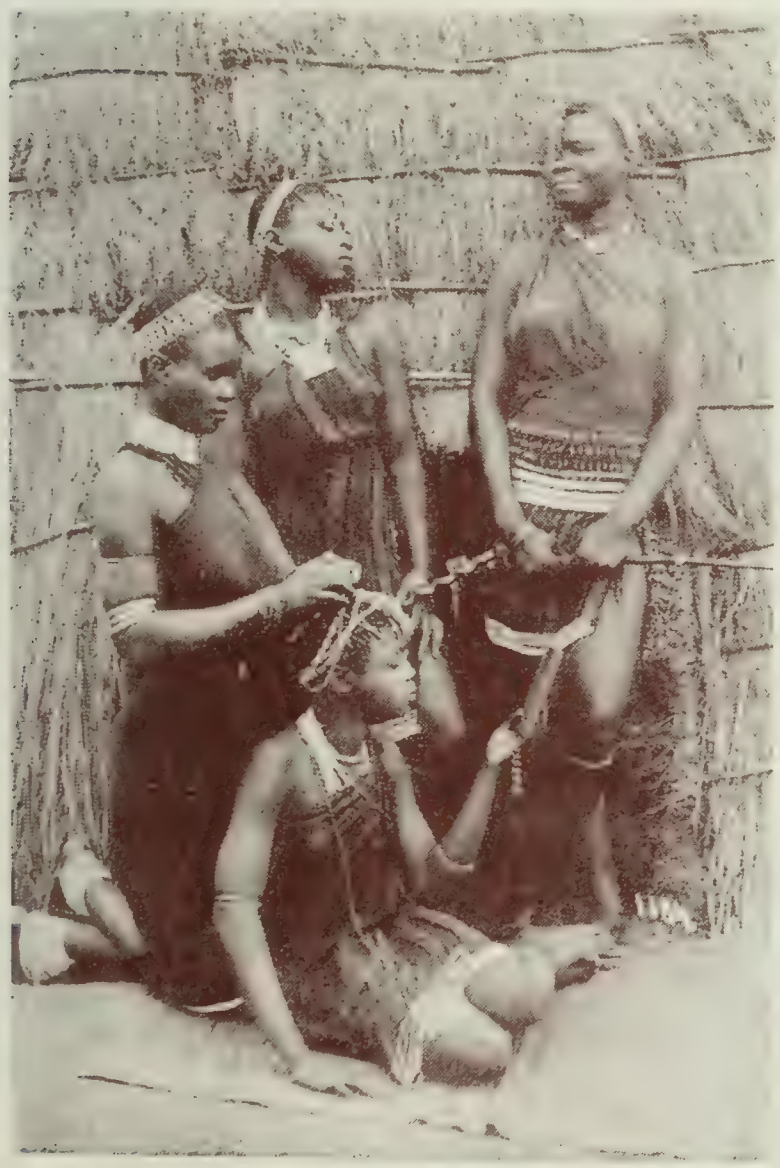
Rain doctor keeping off lightning

Any man, even though from a foreign country, who professed to be able to bring on rain was welcomed in Zululand; he was permitted by the king to practise among his subjects and to reap the benefit of his good works. He, however followed his calling at a peculiar risk to his own life. The usual fee was one or more oxen according to the area over which the rain was to be made to descend. The Zulu kings frequently sent to Swaziland for rain, as the kings of that country were supposed to be intimately acquainted with the drugs, etc., necessary for bringing it on

Not only, however, have Natives the superstition that certain persons can make rain fall, but the contrary idea as well, viz., that there are individuals who are able to prevent it from falling. The belief that rain can be kept off by human agency is very strong and widely prevalent throughout both Zululand and Natal. The usual expedient adopted for keeping lightning from striking and thunder from crashing over a kraal is, under the direction of some qualified rain-doctor, to hammer into the ground in the vicinity of the kraal small pegs, smeared over beforehand with a black medical preparation. These pegs remain in throughout the season, but the greatest care must be taken the following year, especially if there be any signs of drought, to pull them up, as well as any that may have been inserted in the meantime by maliciously-disposed people, and throw them all into the stream.

When a bad storm is imminent, heaps of grass will be carried to the upper side of the kraal and there set alight, sprays of particular plants are then thrown into the fire, which, whilst preventing the lightning from striking anywhere about the kraal, are supposed to encourage the rain to fall as heavily as it likes.

One of the most interesting and remarkable customs is that of *hlonipa*, or the propriety of behaviour. It is of great importance and primarily affects women. As, owing to the prevalence of polygamy, the women rarely if ever remain unmarried, it may be said at one time or another to affect the whole of that sex. The leading principle is this: A woman is, on the one hand, bound to respect her father-in-law, whilst on the other, she is obliged to respect her son-in-law; or, to use the Zulu language, the *umfazi* respects her *ninazala* and



(Photo by Trappists) *Vanity in the Kraal*



Classic (Photo by Trappists)

LEGISLATIVE LIBRARY ONTARIO

the *mkwekazi* respects the *mkwenyana*. The custom thus arises out of the marriage relation, respect being shown by women towards those men whom marriage has drawn into a close relationship. The word *hlonipa* is probably derived from *izi-nhloni*, meaning "feelings of modesty." There are two main ways in which the custom is observed—(*a*) when, in conversation, direct reference has to be made to the relatives by marriage above specified either by the mother-in-law or the wife; (*b*) when the said mother-in-law or wife happens to be in the presence of the same persons.

A Zulu woman may not mention the name of her father-in-law, nor may she speak of her son-in-law by his proper name. To use the name of either is to imply considerable familiarity between the speaker and the person referred to, which, in the relations mentioned, has no right whatever to exist. The close relation in which the one stands towards the other demands the observance of a certain propriety, which is shown either by modifying the proper name or substituting for it an altogether new word. Suppose the man towards whom respect or propriety has to be observed has such a name as Ndabankulu, meaning "great story," then, not only will the word be modified to, say, Mbutshonkulu, where the portion *ndaba* is displaced by a fictitious word *mbutsho*, but, inasmuch as *ndaba* is a complete word in itself and a noun frequently used (it means "story, affair, business, discussion," etc.), as often as the person *hlonipa*-ing has occasion to use even the common noun, she will substitute another word in its place. In other words, she changes the proper name as often as she has occasion to use it, and, in addition, is obliged, whenever requiring the common noun, to use a different term. The position becomes the more surprising the better we realize its force and effect. We see that the woman, who has probably accustomed herself to the use of the strange word *mbutsho*, puts the person she speaks to to the trouble of discovering what is meant by her arbitrary term. And the annoyance is real, for in one part of the country *mbutsho* may be used by women as the substitute for *indaba*, whilst in another a totally different and equally meaningless word may be employed. Thus a regular *woman's* language soon begins to grow up.



Photo by Trappists] Drawers of Water



Nature's Cradle [*Photo by Trappists*

Now as regards the sub-head *(b)*. As often as a woman comes within view of her son-in-law she instantly covers herself, bringing the skin or blanket she is wearing well up under her neck, so as completely to hide her breasts. In addition, she will tie what is known as an *umnewazi* round her head, not anywhere, but near the base of that portion of her hair which has been "done up." The *umnewazi* may be a narrow strip of cloth or hide, a string of beads or even a plain piece of cord, and so on. In cases of emergency, as when the mother-in-law happens to meet her son-in-law suddenly in the field, a blade or two of grass suffices. As the *umnewazi* need not, and is not, worn by a woman to *hlonipa* her father-in-law, we see the custom under consideration takes on its intensest form when a woman is in the presence of her son-in-law. Although observed chiefly by women the custom is also followed to some extent by men.

Another characteristic of the Zulus is the general practice of stringing together praises, called *izibongo*, by way of extolling important actions, courageous deeds, etc., performed by any person, man or woman. To such extent is this carried, that even Europeans who have much to do with Natives have "earned" or "accumulated" a dozen or more of these praises. The Zulu kings—Tshaka, Dingana, Mpande, and Cetshwayo—each had heralds at their courts, called *izimbongi*, who were capable of reciting for hours at a time the rythmical and eloquent praises of their royal masters.

National heroes, too, had long sets of praises, as also chiefs and other men of rank. These compositions, not devoid of a poetic sense, were learnt by heart by their comrades or followers and shouted out in a most dramatic manner on special occasions. Women of high rank, who were often prominently before the public, also had their *izibongo*.

This form of composition, being of a metaphorical and abbreviated nature, is by no means easy to follow, even in the case of a Native, because of the obscurity or remoteness of the feats of personal daring referred to, or the various historical allusions. Many a time, in



The Laundry

the old days, when the Zulu army was on the march, tired, thirsty and hungry, the herald would dash forward singing-out the familiar praises of the reigning monarch. Such action instantly cheered the whole column, causing the men to pull themselves together and move at a brisker pace towards their goal. Other occasions on which such praises were heard were when young men were assembled together smoking the horn, or when the king made some deserving warrior a present of a troop of cattle.



Milking

The Zulus may be said to be a pastoral people, the chief stock kept by them being cattle, goats, and sheep. They also carry on a certain amount of agriculture, sufficient to support their families. The principal crops grown are mealies, mabele or Kafir-corn (from which their favourite beverage *tshwala* is prepared by the women), pumpkins, beans, and sweet potatoes. The cattle are herded by boys of ages ranging from eight to eighteen, the smaller lads being required to look after the calves, goats, and sheep. Formerly much care was called for, as there were no such things as fences round the neighbours' gardens and any cattle getting into these precious crops meant a severe "hiding" for the boy or boys responsible. There was, of course, no such thing as ploughing in the old days, only hoeing and such was invariably done by women.

The homes of the people are known as *imizi* or kraals, and these consist of as many huts as there are wives, with additional ones for young men and for storing grain, etc. The huts are built round the cattle enclosure (the principal one being on the upper side), the reasons for this probably being because, in former days, cattle were liable to be attacked by wild animals, or to be driven off during the night by the enemy. Where possible, a fence of wood or stone was built right round the whole homestead so as to afford additional protection.

The cutting of wattles and poles for the huts and cattle kraal, as well as the construction of the huts and kraal, was a duty that fell on the men, the women being called on to cut the grass for the huts and to lay and bind it on with cords plaited by themselves or by the children.



Preparing for a Wedding

As the land, especially in former days, was all communally occupied, no one had any right thereto. It was said that all of it belonged to the king, who could place people thereon or remove them as he saw fit. At the same time, if a kraal head and the inmates of his establishment served the king and conducted themselves properly towards their neighbours, and did not become so rich in cattle as to excite their jealousy, there was no reason why they should not continue for years to occupy the land, without paying anything in the form of direct taxation. The wealthier people made a point of presenting one or more of their daughters to the king by way of tribute, just as their own followers were obliged by custom to present their immediate heads with particular portions of any beasts slaughtered by them from time to time. The king had some twenty or more huge kraals, though by no means equal to one another, erected at suitable places throughout the country. It was to these that the cadets, at about the age of 18, went year by year to be trained. At some of the more important were stationed one or more regiments or sections of regiments. In connection with each of these kraals, moreover, was what was known as the *isigodhlo*, that is, the upper portion of the kraal which was cut off from the remainder by an extraordinarily high fence built with the object of concealing from view the private apartments of the royal household. It was into this enclosure that every girl presented to the king was put and there confined, under the supervision of an elderly "mother" of the king, until either married off by royal command to some person of note (who thereupon paid a heavy *lobola*) or kept by the king himself as a concubine.



A Musician [*Photo by Trappists*

Under the Zulu regime, as has already been stated, marriage was controlled by the king. The great "Feast of the First Fruits," held annually at the principal royal kraal (each king had his own capital) and during the first week of January, was usually the occasion on which new laws were proclaimed and formal permission given to certain clearly-defined groups of men and girls to marry *inter se*. This, of course, did not affect the right of a father to get *lobola* for his daughter, by *lobola* being meant a number of cattle, usually not exceeding seven or eight—though not all delivered at once—presented by way of compensation for the loss of the girl's services and as a visible guarantee on the part of the bridegroom that he would treat the girl in accordance with the best usages of the country.

The practice of marriage being specially licensed by the king brought about an eminently satisfactory state of affairs. If individuals sometimes suffered, the community at large derived very great advantages from the strict and universal discipline that was imposed. The moral tone of the people, if we bear in mind their lower standards of life, reached a high level. The deep shadow of prostitution rested nowhere upon the land. Under such customs as these, every girl got a husband and a protector. Owing to the existence of polygamy, not every man got a wife, but every man worth one did. The scarceness of women from the

men's point of view, caused them to redouble their energies, and every manly quality of which people in such a state of development were capable was brought forth in an eminent degree.

Before a warrior could marry, he had to have sewn on his head—and only a qualified barber could undertake such a job—the peculiar ring of cord and blackened wax known as the *isicoco*. This, again, required the royal sanction and such sanction, except in certain special cases, was given only to such persons as had passed well beyond the age of 30. The assumption of the head-ring signified that the wearer had arrived at man's estate and, therefore, fit to undertake higher kinds of responsibility.



NATIVE MUSICAL INSTRUMENTS

1.—Umqangala (string-bow)
2.— " "
3.— " "
4.—Ugwala (whistle) (side view). When blown makes a
5.— " " (front view). [noise like an ostrich
6.—Isitontolo (string-bow)
7.—Isitontolo (string-bow)
8.—Igemfe (Native whistle)
9.—Umtshingo " "
10.—Ugubu (chest string-bow)
11.—Uqwabe (Men's chest string-bow)
12.—Isigubu (Native drum)

Women, too, did not do their hair up, scent it, and smear it with red clay, as is common among them, without special authority, which, as a rule, was given some time before the order to marry into a particular regiment was proclaimed.

A word or two as to various articles made or manufactured : The art of pottery, if such it can be called, is practised to some extent, especially by the women. Beer pots and cooking pots were made of clay, nowadays one finds these being gradually superseded by vessels of European manufacture. Water is still drawn from the spring in large calabashes, and the same gourd is likely to continue for an indefinite period to be used for holding the well-known *amasi*, or sour milk, on which children are so largely fed.

Among the articles men and women have been, or are still, in the habit of making are—mats of all shapes and sizes, baskets (large and small), spoons, knobsticks, stools, wooden buckets, and musical instruments ; assegais, hoes, bangles, and other metal work ; karosses, leather skirts (for women) and *mutshas* ; feather and other ornaments of various descriptions ; bone and horn work, snuff-boxes, beadwork, etc., etc.



A Little Warrior (*Photo by Trappist*)

I must now conclude, as it is manifestly impossible to attempt anything like an adequate description of this noble race of savages within the compass of a few pages. There are numerous other sides of their life that might have been touched on, such as their amusements, their musical instruments, their songs and dances, their magnificent fighting qualities, their tactics, methods and customs in time of war, their hunting expeditions, the ways in which boys and girls are trained and educated, their method of smelting iron and of making therefrom instruments of various kinds ; how they made fire, what happened in times of famine and other public calamities ; their ceremonies in connection with marriage ; habits and customs relating to various phases of domestic life, and the general characteristics of the language—quite apart from the possibility of each of the heads already dealt with herein being developed to an indefinite extent.

It is hoped that the series of photographs illustrating these notes will assist in giving the reader a clearer idea of the people than would have been otherwise possible.

II.—Indians

It should be noted, in the first place, that Indian immigrants, as such, are quite distinct from the Bombay merchant class, usually called Arabs. Indian immigrants comprise only those Indians (and their descendants) who have been brought over from India under the Indian Immigration Laws, and the term does not include any who have paid their own passages to this Province, and who are not under those laws.

It was found, in 1860, that owing to the unreliability of Native labour, and also the extreme difficulty in procuring it, the establishment of the projected sugar industry in Natal was quite impossible without a permanent and reliable supply of labour.

The Government was approached on the question, and agreed to advance a certain sum of money. Arrangements were therefore made, and in November 1860 the first shipment of Indians arrived in Natal. From that date until July, 1866, twenty ships arrived bringing Indian immigrants to Natal. The total number brought under this scheme was 4,078 men, 1,481 women, 401 boys, 340 girls, a total of 6,300 souls.



Indians landing in Durban

These Indians came out under a five years' indenture, with the right of a free passage to India after fifteen years industrial residence in the Colony, namely, five years under indenture and ten years as free labourers.

As an inducement to these Indians to come out to Natal, the first-comers were told that they would be allowed to commute their right to a return passage to India in exchange for small plots of land. About three hundred men took advantage of this offer, and were granted plots of land in Alexandra County. Very few of these Indians who came to Natal in 1860 to 1866 are left in the Province.

Indian immigration ceased after the arrival of the Indians in July, 1866, not because the Indians were not required or could not be recruited, but because of the political chaos in the Colony at that time, funds could not be provided to carry on immigration.

The cessation of immigration proved conclusively that industries could not be carried on without it. The matter was brought before Parliament, and a law was passed creating a Trust Board to carry on immigration. Immigration was restarted, and the first Indians under the new scheme arrived in Natal 28th July, 1874.

Under the new scheme, Indians came out under a five years' indenture, with the right to a free passage to India after ten years' residence in the Colony, that is, five years under indenture and five years as free labourers, with the right of obtaining a free pass to remain in the Colony if they did not wish to return to India.

Up to this point the Government paid half the expenses of Indian immigration, and the employers the other half. The Government contribution, however, was not to exceed £10,000 per annum. This contribution finally ceased in 1899.

In 1906 the conditions of indenture were again altered. Under Act 17, 1895, Indians had three options at the expiration of their first term of indenture :—

1. To return to India at once.
2. To re-indenture for a further period of two years.
3. To pay an annual licence of £3 to remain in the Colony.



Indian Women

Under this law, no Indians who arrived in the Colony after the 16th October, 1896, or any of their children can claim a domicile in Natal. The result of this law has been to increase the number of Indians returning to India at the expiration of their first indenture.

In 1905 an Act was passed to enable Indians who had lost their right to a free passage to India, or Indians who were otherwise free Indians, to regain the right to a free passage to India by re-indenturing for a further period of from two to five years.

The administration of Indian immigration is now under an elective Board, consisting of seven members, elected by employers of indentured Indian immigrants, and two members appointed by the Government.

Indian immigrants coming to this Province are nearly all of the agricultural class, and have been employed on small farms in their own districts, and have left India to better their position. On arrival at the depôts in India, large numbers of them have presented themselves in a half-starved condition, with not an "anna" in their possession. Three or four months of regular feeding and healthy environment has made a wonderful change in most cases. This has been especially noticeable in times of famine in India, but even in normal seasons every shipment has its quota of Indians who have been suffering from want in India.

In this Province, Indian immigrants are divided broadly into Madras and Calcutta, according to the ports they sail from, but they come from numerous districts. Those coming from the Madras agency are mainly from the following districts :—Chingleput, N. Arcot, S. Arcot, Salem, Coimbatore, Tanjore, Trichnopoly, Madura, Godavari, Ganjam, Guntoor, Kistna, Nellore, Cuddapah, Kurnool, Bellary, Annantapur; and others. Those sent out by the Calcutta agency are mostly from—Allahbad, Azamgarh, Bahraich, Barabanki, Bareilly, Basti, Benares, Cawnpur, Fyzabad, Gonfa, Ballia, Partabgarh, Lucknow, Sultanpur, Agra, Ghazipur, Gorackhpur, Mirzapur, Jaunpur, Rai Bareli, and others.

The chief castes represented among the Madras Indians are—Vannias, Oddas, Kammas, Malas, Kapus, Balijas, Ediyas, and Parias, etc.

From Calcutta we get—Shirs, Lodhs, Kahars, Kurmis, Thakurs, Mussalmans, Jats, Chamars, etc.



Fruit and Vegetable Dealers

The following extract from the Protector's report, for the year 1910, gives the Indian immigrant population of Natal at 31st December, 1910 :—

	Men.	Women.	Children.	Total.
Free Indians	20,933	10,581	34,403	65,917
Indentured Indians ...	16,465	6,491	4,072	27,028
Re-indentured Indians ...	8,415	3,518	3,816	15,749
				108,694

Since Indian immigration first began, 147,585 souls have been introduced from India. The following extract from the same report shows what has become of 68,747 of them. The balance of those introduced, *i.e.*, 78,838 souls are to be found among the indentured, re-indentured, and free Indians :—

	Men.	Women.	Boys.	Girls.	Total.
Total introduced	90,032	36,456	11,246	9,851	147,585
Died in Colony	12,440	6,128	1,470	1,372	
Returned to India... ...	21,537	8,173	1,833	1,780	
Left Colony	11,389	2,171	282	172	
	45,366	16,472	3,585	3,324	68,747
					78,838

The free Indians are to be found all over the Province, usefully occupied, but many are around the larger towns, where they have vegetable gardens and provide the white population with a regular and cheap supply of vegetables. A number of these people are farming on their own account. Domestic service accounts for a considerable number, and large numbers are employed as free labourers by Corporations, Estates, etc.

The indentured population is, for the most part, happy and contented, and pays very little heed to the agitations of their would-be friends.

The Indian under indenture has secured to him and his family good and comfortable lodging, wholesome and suitable food, fuel, proper medical attendance, medical comforts and medicines, free of all charge to himself during the term of his indenture.



Indian Temple, Durban

His wages are, by law, a first charge on the estate of his employer, and apart from that, every employer has deposited with the Indian Immigration Trust Board a proper guarantee for the fulfilment of the conditions laid down.

Another important point is that the indentured Indian is secure from civil action. He is, therefore, no "fair game" for the avaricious money-lender. The free Indian too often places himself at the mercy of the storekeeper and money-lender, who freely gives him credit, to his own detriment.

On January 4th, 1911, the Indian Immigration Trust Board received cables from the Madras and Calcutta agencies, stating that the Government of India had definitely decided to prohibit further indentured emigration to Natal after July 1st.



Indian Fishermen

There is still a large number of Indians in the Province, but a considerable proportion of these will take advantage of their right to a free passage and return to India on the expiration of their contracts, and the supply of Indian labour will be reduced. The number available now is not sufficient for present needs, while with more land in Zululand being placed under cultivation, and with expanding industries in the Province, the need of a steady and reliable supply of labour is increasing.

The result of the stoppage of Indian immigration will be more apparent next year.

Approximately, the indentured and re-indentured Indians are distributed as follows:

Sugar Estates	7,200
General Farming...	6,000
Coal Mines	3,600
Tea Estates	1,800
Railways	2,400
Domestic Service	2,000
General	1,880
	24,880

Although the first introduction of Indians was chiefly on account of the Sugar Industry, it is to be observed that less than one-third of the indentured Indians are now employed in this one industry.



Mosque, Durban







1.—*Indian Barracks*

2.—*Indians at work on Railway*

3—*Muharram Festival—Scene at Umgeni*



EDUCATION

CHAPTER XX



IN Natal, public education—which is modelled as far as possible on the English system—is compulsory as far as all children are concerned who are residing within three miles of a Government or Government-aided school.

The State expenditure in 1909-10 was £130,747 17s. 7d. At present there are 578 schools under Government inspection :—342 European schools, 175 Native schools, 36 Indian schools, and 25 schools for coloured children, with an average enrolment of 31,972 ; consisting of 13,999 Europeans, 13,452 Natives, 3,387 Indians, and 1,134 coloured children.

The average daily attendance is, in European schools, 84 per cent. of the average number enrolled ; in Native schools, 82 per cent. ; in Indian schools, 77 per cent. ; and in schools for coloured children, 82 per cent.

Of the 578 schools, 57 have been established and are maintained exclusively by the Government. The other schools are either proprietary, denominational, or schools under the actual or nominal control of local committees, receiving grants varying from £3 to £500 a year. Nearly all the Native and Indian schools are directly connected with the various religious bodies in the Province.

The Government schools consist of two High schools, 46 Primary schools, two Art schools, five Indian schools, and two schools for coloured children.

Pietermaritzburg has one High school and three Primary schools, and Durban one High school and seven Primary schools. Of the remaining Primary schools, one is at Bellair, one at Greenwood Park, and 34 are country schools established in the chief centres of population. Pietermaritzburg has one Art, one Indian, and one school for coloured children, while Durban has the other Art, the other school for coloured children, and the remaining four Indian schools.



1.—Headmaster's Residence
2.—Physical Laboratory
3.—PIETERMARITZBURG COLLEGE (Looking South)
4.—Staff Quarters
5.—Chemical Laboratory



University College, Pietermaritzburg

The average cost to the Government for educating each European child is £5 8s. 2¼d.; for each Native child, 14s. 3½d.; for each Indian child, £1 8s. 2½d.; and for each coloured child, £3 9s. 2¾d.

In Government schools primary education is free to those who are unable to pay, otherwise the fees vary from 1s. 6d. to 6s. per month. In the Secondary schools fees vary from 10s. to 30s. per month.

Certain conditions being fulfilled, a Capitation Grant of from 10s. to 15s. is given to Government-aided Primary schools per unit of average daily attendance throughout the year.

Children of farmers and others residing not less than five miles from a Government or Government-aided school, or unable from other reasons to attend the same, and who have complied with certain conditions laid down, receive grants of from £3 to £6 per pupil, provided that the grant to any one family does not exceed £30 a year.

Annual examinations are held in connection with the Cape of Good Hope University, the Board of Education Science and Art Department, the City and Guilds of London Institute, as well as many departmental and other examinations for teachers and scholars.

Besides the attendance in the Public schools it is estimated that some 2,000 white children are being educated in private establishments.

A very successful Technical Institute has been established in Durban since July, 1908, and there is now an average attendance of about 500 in the various classes. A similar institute has been established in Pietermaritzburg.

A Training College for Teachers was established towards the end of 1909, and is at present conducted in the Education Office Buildings. There are now in attendance from various parts of the Province 60 students, the large majority being women.

A University College for Natal was started in 1910. A College Council has been elected, and a highly-qualified staff of professors and lecturers have been appointed. The Town Council of Pietermaritzburg has given a magnificent site of over 40 acres for college purposes, and the buildings are rapidly approaching completion. In the meantime, suitable rooms have been obtained in the Town Hall for the accommodation of students.

Educational advantages in Natal are prominently dealt with in various parts of this book, and numerous illustrations demonstrate the value of the spacious buildings, beautiful large grounds, etc., which are in use for scholastic purposes.



Preparing for First School Visit



THE MAMMALS & BIRDS OF NATAL

CHAPTER XXI



THE following article, specially written for this publication, by Ernest Warren, Esq., D.Sc. (Lond.), will no doubt be of great interest to many :—

To pass in review the more interesting characters of the fauna or flora of any country it is important that the biological relationships of the country to the surrounding regions should be carefully considered.

In any limited district the distribution of the animals and plants is, as we know, *local* ; since certain species occur in one part and not in another. Such distribution is dependent on local conditions, as altitude, rainfall, nature of the soil, temperature, and the presence or absence of certain other animals or plants. The causes of the local distribution may be difficult to determine and exceedingly complex; but they are related to the physical and biological environment.

When, however, we compare the fauna and flora of widely separated regions of the earth's surface we find that they possess a distinct *facies* which is largely independent of the climatic conditions and biological environment. For example, the climatic conditions of Natal and certain parts of California are closely similar, but the kind of animals found in the two countries is widely different. Here we have a *regional* distinction in the organic forms, arising through the separation of the countries from each other during prolonged periods of geological time. New genera have been evolved independently in the two regions, and thus the fauna and flora have assumed a distinctive character.

From this point of view the world has been divided into a number of zoological regions each possessing a characteristic fauna, and separated from one another by geographical boundaries, which are more or less impassable by terrestrial life, such as wide oceans, high mountain ranges, deserts, etc. The mutual relationships of the faunæ of countries may throw light on the geographical changes which have taken place. For example, Madagascar contains none of the large mammals characteristic of Africa, and it is hence concluded that this island was separated from the mainland before these animals were present on this Continent. From geological deposits it is known that in Tertiary times a great sea extended over the greater part of the Sahara, and in that period it is probable that Africa and Madagascar were joined, and that more or less continuous land extended eastward to Southern India and Ceylon. Over this extensive region ranged the lemurs, but the hoofed-mammals so characteristic of South Africa at the present day did not occur. At a later period the eastern land slowly disappeared and Madagascar became separated from the mainland and retained its lemur-fauna. The Sahara Sea now vanished and hoofed-mammals from the north slowly found their way southwards from Asia and Arabia, and the wonderfully rich and varied ungulate-fauna gradually came into being.

The portion of Africa lying north of the site of the ancient Tertiary Sea, spoken of above, possesses at the present time a fauna closely related to that of Europe and Western Asia, while the fauna of the southern part, south of latitude 22° N., is distinct and characteristic. Consequently this portion of Africa constitutes a well-defined zoological area, which is known as the ETHIOPIAN REGION.

This region has been divided into four Zoological Sub-Regions, according to Alfred Russel Wallace, viz., (1) Central and East African Sub-Region, including South Sahara, Somaliland, the Lake Region, and the country extending east and west of it to the coasts; (2) West African Sub-Region, including the country south of the River Gambia and the whole of the forest lands of the Congo Basin ; (3) South Africa, including the region south of the Zambesi ; (4) Madagascar.

From this we see that, zoologically-speaking, Natal forms a portion of the South African Sub-region, the northern boundary line of which appears to roughly coincide with the Zambesi.

The Ethiopian Region as a whole is characterised by possessing a great variety of antelopes, also distinct species of rhinoceros, elephant, rock-rabbit and elephant-shrew. Peculiar mammals which occur nowhere else in the world are the hippopotamus, giraffe, golden moles, earth-pig, chimpanzee, numerous lemurs, and a few other less well-known animals. It is interesting to note that bears, true moles, camels, deer, goats, sheep, wild ox and wild boar, etc., which are characteristic of Asia and Europe, are altogether absent in the Ethiopian Region.

Among the birds the plantain-eaters, colies, wood-hoopoes and the secretary bird are quite peculiar ; there are many peculiar species of fruit-thrushes, flycatchers, shrikes, crows, starlings, and especially weaver-birds. The region is rich in barbets, cuckoos, rollers, bee-eaters, hornbills, and goat-suckers. It is very poor in parrots, and there are not many pigeons, but francolins, guinea-fowl, vultures and birds-of-prey are very common.

MAMMALS

We will now take the various orders of mammals and detail some of the more interesting species that occur in Natal. It may be useful to remark here that full scientific descriptions of the animals are contained in a work entitled ; "The Mammals of South Africa," by W. L. Sclater, two vols., London, 1900-1.



Samango Monkey

PRIMATES

This order is represented in Natal by three species of vervet-like monkeys, the common baboon, and by one species of lemur, known as the bush-baby.

The vervet monkeys are arboreal. The COMMON VERVET *(Cercopithecus lalandii)* is grizzled yellowish-grey and black with a patch of rufous hair at the base of the tail.* It is found in most parts of Natal. The SAMANGO MONKEY (*C. samango*) is a larger animal and darker in colour, and the outside of the fore-limbs is black. It occurs chiefly in the inland districts in thick bush, and the skin was formerly much used by the Zulus to form the loin-dress (*umutsha*) for a particular regiment. SYKES' MONKEY (*C. albigularis)* is yellower than the common vervet, and it is also distinguished from it by the outside of the fore-limbs being black as in the Samango. It occurs in the coast bush and is plentiful in Zululand.

The CHACMA or COMMON BABOON (*Papio porcarius*) is well-known, it is the largest of all the baboons. The baboon lives in troops consisting of perhaps scores of individuals, and inhabits rocky districts. The word "Chacma" is the English form of the Hottentot name of *t'Chatikamma.* When troops of baboons are moving about, old experienced males are posted as sentinels to warn the others of approaching danger. They are nocturnal in habits, and are practically omnivorous, feeding largely on insects and scorpions, for which the stones on the veld are turned over for examination. In speaking of a tame baboon Le Vaillant in his "Travels in Africa" says: "By its simple and striking instinct it seemed to anticipate my efforts. . . As it was extremely familiar and attached itself to me in a particular manner I

*The majority of the illustrations have been prepared from photographs of specimens in the Natal Museum, which have been mounted by Mr. F. Teschner.

made it my taster. When we found any fruit or root unknown to my Hottentots we never touched them until my dear Kees had first tasted them: if he refused them we judged them to be either disagreeable or dangerous and threw them away."

The only lemur that occurs in Natal is the BUSH-BABY (*Galago garnetti*). It lives in the thick bush and is nocturnal. On the ground it jumps like a kangaroo on its hind-limbs covering several feet at a spring. It feeds on fruits, insects, and perhaps small birds, and possesses a peculiar cry resembling that of an infant.

CARNIVORA

The Carnivora are well represented. The LION (*Felis leo*) is extinct except in the North of Zululand. General Bisset shot a lion in Natal in 1865. The Dutch distinguish two maned varieties, the "Zwartjvoorlyf" and the "Geet-voorlyf." *i.e.*, the black and yellow maned. Selous regards these as individual differences, and he states that both kinds and even maneless lions may be born among the same litter.

The LEOPARD (*Felis pardus*) generally called "tiger," is still comparatively common in the more unfrequented kloofs. It is the most widely distributed of all the cat family, being found over the whole of Africa and the greater part of Asia. The leopard varies considerably in colour: a pale sandy variety occurs in Matabeleland, and a very dark form has been found near Grahamstown.

Mr. W. L. Sclater states that the black African leopard differs in its melanism from the Asiatic form. In the former the melanism is caused by the great increase of the spots which finally fuse to form a uniform black coat, while in the latter it is caused by the darkening of the tawny ground colour, and the black rosettes can be seen like spots on watered silk.

The SERVAL CAT (*Felis serval*) is of a more slender build than the leopard, and the spots are not arranged in rosettes ; also, the fur is thicker and somewhat woolly. It has a wide distribution throughout Africa, but does not appear to be very common in any part. A black variety occurs in the Eastern Transvaal and also at Kilima-njaro. In this, as in the Asiatic black leopard, the spots can be seen shining through the general dark background. A good specimen of the black variety may be seen in the Natal museum.



Serval Cats, with specimen of Black variety in front

The Caffer Cat (*Felis caffra*) is speckled greyish brown in colour, and is closely similar to, if not identical with, the wild cat of Abyssinia and North-East Africa. The Caffer-Cat breeds freely with the domestic cat, and it is supposed by some naturalists that the latter originally sprang from this species.

The Cheetah or Hunting Leopard (*Cynaelurus jubatus*) differs from the genus *Felis* in having the claws less curved and non-retractile. It is larger than the leopard, and the spots are not arranged in rosettes. This animal is stated to be the swiftest of all mammals; it feeds on hares and small antelopes. The Indian and African cheetah probably belong to the same species. The creature is not particularly nocturnal, and is chiefly found in open country. It occurs in Zululand, but is far from common.

The true Civet Cat (*Viverra civetta*) is not found in Natal, but it extends as far south as the Eastern Transvaal. This animal produces a secretion in two pouches, one on each side of the root of the tail, which constitutes the perfume known as "civet."

The Genets, with elongated bodies, long tails, and soft spotted fur, are represented in Natal by the Large-spotted Genet (*Genetta tigrina*). The skins of this animal are frequently made into karosses.

There are several species of Mungooses of the genus *Herpestes*, the Large Grey Mungoose (*Herpestes caffer*) of a speckled grey colour, the Slender Mungoose, the Water Mungoose, the Small Grey Mungoose and the White-tailed Mungoose are all fairly common.

The Banded Mungoose (*Crossarchus fasciatus*) is grey and has some seventeen black and white bands over the posterior part of the body. It is social in its habits and can sit up on its haunches. In addition to insects it feeds on seeds and fruits.



The Cape Hunting Dog

The MEERKATS, which are common in the neighbouring Provinces, do not appear to occur in Natal.

The STRIPED MUISHOND (*Zorilla striata*) is a skunk-like animal, possessing coarse black fur, and running over the back there are four longitudinal stripes of white.

The SNAKE MUISHOND (*Poecilogale albinucha*) is like a weasel, and, as the name implies, it has a very thin elongated body. The fur is mostly black, but running along the back are four yellowish stripes.

The CAPE HUNTING DOG (*Lycaon pictus*) is wolf-like, and yellowish in colour with brown markings. It is a social animal, occurring in packs of about a dozen individuals. They hunt in packs with great skill, and run down waterbuck and wildebeests with comparative ease. They have a characteristic cry which has been likened to the second note of the cuckoo. The young are born in holes with underground passages.

This wild dog occurs throughout the whole of South Africa and it extends northward through Uganda and Abyssinia.



Aard Wolf

The AARD WOLF (*Proteles cristatus*), sometimes called the "jackal," has the shape of a hyæna with hind quarters sloping downwards. It is yellowish grey with five or six transverse black stripes on the body. The species is found in central and South Africa. The teeth of the animal are remarkably rudimentary, and it is probable that termites and other insects constitute its chief diet.

The only true HYÆNA that occurs in Natal is the SPOTTED HYÆNA, or TIGER WOLF (*Hyæna crocuta*); but it is rare and seldom met with.

The BLACK-BACKED JACKAL (*Canis mesomelas*) is a little larger than the English fox. It has a greyish black back and rufous sides. It is common throughout South Africa. The animal is omnivorous and causes some damage to flocks.

The SILVER FOX (*Vulpes chama*) appears to be rare in Natal, and its food consists chiefly of insects.

The RATEL (*Mellivora ratel*) is a badger-like creature which is interesting in possessing a very unusual mode of colouration, in that the under surface and sides are black, and the back is grey. Almost universally in the animal kingdom the under surface of the body is paler in colour than the upper. It is very shy and lives in hollows at the roots of trees. The animal is frequently called the "Honey-bear," since it is particularly fond of honey, and it has been stated that it follows the so-called Honey-guide bird in order to find the nests of the wild bees.

Two OTTERS occur in Natal, the CAPE OTTER (*Lutra capensis*) and the SPOTTED-NECKED OTTER (*Lutra maculicollis*). The latter is darker brown than the former, while the throat and chest are pale brown, sometimes spotted with light red. In the Cape Otter there are no claws on the fore-feet, while in the second species there are well-developed claws on all the toes.

The CAPE SEA LION (*Aretocephalus pusillus*) has an external ear and thick woolly under-fur or "seal-skin." It occurs chiefly on the western coast of South Africa, and on the eastern side it only extends as far north as Bird Island in Algoa Bay.

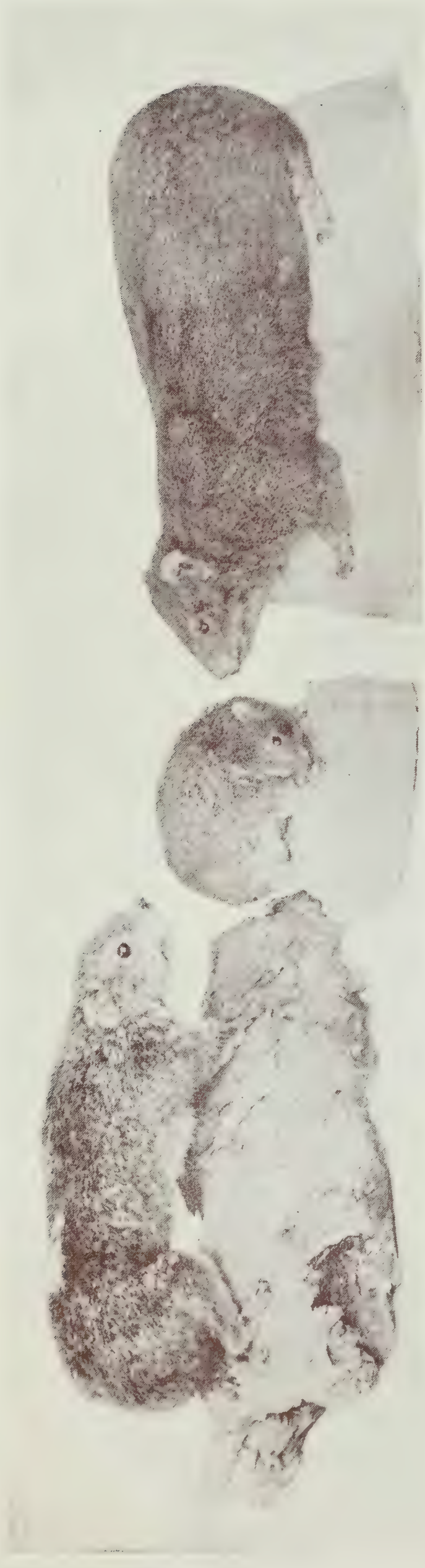
UNGULATA

The next order of mammals, the Ungulata, are the hoofed animals which are so characteristic of South Africa, and include the zebras, rhinoceroses, hyraxes or dassies, elephant, antelopes, giraffe, buffalo, pigs, and hippopotamus.

The majority of the Ungulata are grouped into two sub-orders according to the arrangement of the toes. In the most specialized forms the mid-axis of the limb passes through the middle toe or digit of both fore and hind-feet and the remaining toes are more or less rudimentary, as in the horse, zebra, and rhinoceros (PERISSODACTYLA) : while in the second series the mid-axis passes between the third and fourth digits as in pigs, oxen, and antelopes (ARTIODACTYLA).



Head of Black Rhinoceros



Common Hyrax or Rock Rabbit to the right and Tree Dassie to the left

The sub-order PERISSODACTYLA includes the following animals.

The MOUNTAIN ZEBRA (*Equus zebra*) occurs in the mountainous districts of Cape Colony and in German South-West Africa.

BURCHELL'S ZEBRA (*Equus burchelli*) occurs in a number of geographical races or sub-species. There is the typical form (*Equus burchelli typicus*) formerly abundant in the Orange Free State. The transverse barrel-stripes do not reach the ventral longitudinal stripe ; legs are unstriped. The DAMARALAND ZEBRA (*Equus burchelli antiquorum*) is similar, but the legs are slightly striped as far as the knees. The TRANSVAAL ZEBRA (*E. burchelli transvaalensis*) has the barrel stripes meeting the ventral longitudinal stripe. WAHLBERG'S ZEBRA (*E. b. wahlbergi*) is similar, but the intermediate or "shadow" stripes are wide and very distinct on the quarters. This appears to be the race that occurs in Zululand.

In addition to these there are several other races of which we need only mention SELOUS' ZEBRA (*E. burchelli selousi*) in which the legs are strongly striped to the hoofs, and the fetlocks and pasterns are black. This is a Zambesi form.

The zebra lives on the open veld in herds of 10 to 30 individuals.

There are two species of RHINOCEROS in South Africa, and both occur in Zululand ; they are the WHITE OR SQUARE-LIPPED RHINOCEROS, and the COMMON or BLACK RHINOCEROS. Both species possess two horns. The WHITE RHINOCEROS (*Rhinoceros simus*) is the largest terrestrial mammal after the elephant. It is slaty grey black. The upper lip is square, or straight all round, with no sign of the proboscis of the black species. The animal is fond of wallowing in mud and is nocturnal. The food consists almost entirely of grass. This species is now very rare in South Africa, and only a few individuals survive in the Zululand reserve.

The BLACK RHINOCEROS (*Rhinoceros bicornis*) has a relatively shorter head than the white species, and the upper lip is prolonged into a short proboscis. It is not appreciably darker in colour than the other species. It feeds solely on twigs, leaves and roots, and accordingly it inhabits bush country rather than open veld.

The sub-order HYRACOIDEA includes only two species in South Africa.

The HYRAX, DASSIE. or ROCK RABBIT (*Procavia capensis*) is a small rabbit-like creature with certain ungulate characters. It is dark brown in colour,

the ears are very short, and the eyes are small. A curious gland is present in the middle of the back. The animal lives in small parties in the crevices of rocks, but it does not burrow. The soles of the feet can act as suckers and the animal can run up nearly perpendicular rocks.

In the TREE DASSIE (*Procavia arborea*) the gland on the back is surrounded by white hair. The animal is of a greyish brown colour it inhabits hollow trees, and can run up trunks and branches with great ease. This species is certainly rare in Natal.

The sub-order PROBOSCIDEA includes only the elephants.

The AFRICAN ELEPHANT (*Elephas africanus*) is grey in colour, and has a rough skin with sparsely scattered hair. Forehead is slightly convex, the ears are very large, and the hinder portion of the back slopes downwards. The tusks are the incisor teeth of the upper jaw.

It is reported that a single surviving elephant remains in North Zululand. Formerly, however, the elephant occurred all over Natal, and the teeth have been dug up in many localities.

The cloven-hoofed ungulates, known as ARTIODACTYLA, have the third and fourth digits of equal size, and the main axis of the limb passes between them.

The only indigenous ox-like animal is the CAPE BUFFALO (*Bos caffer*). The body is massive, and thinly covered with black hair. The female is considerably smaller, and somewhat brown in colour. The horns of the bull are exceedingly heavy and massive. The buffalo lives in herds composed of many females and a few males.

The blood of the buffalo, and of certain other large game, appears to sometimes contain the parasite that causes tsetse-fly or *Ngama* disease; but the wild animals are immune



The Cape Buffalo

to the disease. Domestic cattle, however, are readily susceptible, and it is considered probable that the tsetse-fly can carry the parasite on its proboscis from the wild animals to the farmers' cattle, and thus infect them with the disease.

Formerly the buffalo was very common over the whole of South Africa, but it has become greatly reduced in numbers. A fair number still remain in Zululand.

The SOUTHERN GIRAFFE (*Giraffa capensis*) was formerly found in all suitable localities north of the Orange River.

We now pass to the antelopes, and a few characteristic species will be mentioned in addition to those which actually occur in Natal.

LIST OF HORNS

1—CAPE BUFFALO (MALE)	*Bos caffer (Sparr)*
2— " " (FEMALE)	" "
3—ZAMBESI BUSHBUCK	*Tragelaphus roualeyni (Cum'g)*
4—BUSHBUCK	*Tragelaphus scriptus (Thomas)*
5—INYALA	*Tragelaphus angasi (Angas)*
6—SITATUNGA	*Tragelaphus selousi (Roth.)*
7—KUDU	*Strepsiceros capensis (Smith)*
8—ELAND (MALE)	*Taurotragus oryx (Pallas)*
9— " (FEMALE)	" " "
10—SABLE ANTELOPE (MALE)	*Hippotragus niger (Harris)*
11— " " (FEMALE)	" " "
12—ROAN ANTELOPE (MALE)	*Hippotragus equinus (Desm)*
13— " " (FEMALE)	" " "
14—PALLAH	*Aepyceros melampus (Lich.)*
15—SPRINGBUCK	*Antidorcas euchore (Zimm.)*
16—WATERBUCK	*Cobus ellipsiprymnus (Ogilby)*
17—REEDBUCK	*Cervicapra arundinum (Bodd.)*
18—ROOI RHEBUCK	*Cervipra fulvorufula (Afzel)*
19—VAAL RHEBUCK	*Pelea capreolus (Bech.)*
20—KLIPSPRINGER	*Oreotragus saltator (Bodd)*
21—ORIBI	*Ourebia scoparia (Schr.)*
22—DUIKER	*Cephalophus grimmi (Lin.)*
23—GRYSBUCK	*Raphicerus melanotis (Thun.)*
24—STEENBUCK	*Raphicerus campestris (Thun.)*
25—RED DUIKER	*Cephalophus natalensis (Smith)*
26—BLUE DUIKER	*Cephalophus monticola (Thun.)*
27—RED HARTEBEEST (MALE)	*Bubalis caama (Cuv.)*
28— " " (FEMALE)	" " "
29—LICHTENSTEIN'S HARTEBEEST ..	*Bubalis lichtensteini (Peters)*
30—BLESBUCK (MALE)	*Damaliscus albifrons (Burch)*
31— " (FEMALE)	" " "
32—BONTEBOK (MALE)	*Damaliscus pygargus (Pall.)*
33— " (FEMALE)	" " "
34—SASSABY (FEMALE and MALE)	*Damaliscus lunatus (Burch)*
35—BLACK WILDEBEEST (MALE)	*Connochaetes gnu (Zimm.)*
36— " " (FEMALE)	" " "
37—BLUE WILDEBEEST (MALE)	*Connochaetes taurinus (Burch)*
38— " " (FEMALE)	" " "
39—SKULL OF WART HOG	*Phacochœrus œthiopicus (Pallas)*
40—PUKU	*Cobus vardoni (Liv.)*
41—GEMSBUCK (MALE)	*Oryx gazella (Lin.)*
42— " (FEMALE)	" " "
43—LECHWE	*Cobus leche (Gray)*
44—BUSHBUCK	*Tragelaphus scriptus (Thomas)*
45—BOHOR REEDBUCK	*Cervicapra bohor (Rupp)*



[Illustrations continued on following page





Springbuck—male, female, and young



Head of Sable Antelope

The Colony Bush Buck (*Tragelaphus scriptus sylvaticus*) possesses a number of geographical races. The ordinary variety is dark brown with no transverse stripes ; but there may be some white spots on the hinder quarters. It is perhaps the commonest of the antelopes in Natal. The animal is mostly nocturnal in habits and lives in the bush ; its food consists of leaves, twigs, bulbs, and tubers.

The Inyala (*Tragelaphus angasi*) is one of the most beautiful of the antelopes. The body is pale greyish brown, with nine or ten transverse white bands, and the legs below the knees are bright reddish brown. The female is hornless ; it is smaller and is rufous in colour, and there are about a dozen transverse white bands round the body.

The animal is found in thickly-wooded country, and occurs in small herds. It ranges from Zululand to Delagoa Bay, and it also extends north of the Zambesi.

The Sitatunga (*Tragelaphus selousi*) is of a pale brown colour, and the horns closely resemble those of the inyala. It does not occur in Natal.

The Kudu (*Strepsiceros capensis*) is one of the largest antelopes, and is characterised by the large spiral horns of the male. It is pale greyish brown in colour, and there are about eight transverse, narrow, white stripes surrounding the body.

The animal lives mostly in the bush in small herds, and it is still to be found in Zululand in small numbers.



Inyala—male and female

The Eland (*Taurotragus oryx*) is the largest of the antelopes. The colour of the body is fawn, and on the forehead there is a prominent swelling extending down between the eyes and carrying a tuft of dark brown hair. The horns are massive. The neck is very thick owing to extensive deposits of fat, and there is a large dewlap.

A few occur along the Basutoland and Natal border, and they are now increasing in numbers in the Government Game Reserve. The eland is readily tamed, and would undoubtedly constitute a valuable draught animal.

In the natural state the eland is found in troops, and it is a singularly timid and harmless animal. It is stated by W. L. Sclater that it is able to live without water like the gemsbuck and springbuck, and that the necessary fluid is obtained from bulbs and tubers.

The Sable Antelope (*Hippotragus niger*) is very dark brown or black, with a white belly and a certain amount of white over the face. The horns of this beautiful animal are closely ringed and curve backwards into nearly a semicircle. Measured along the curve they may attain a length of 40 inches. The antelope is not found in Natal and Zululand.

The Roan (*Hippotragus equinus*) is light brown in colour, and has shorter and thicker horns than the sable antelope. It is not found in our area.

The Gemsbuck (*Oryx gazella*) is of a beautiful fawn colour with black markings, and possesses long straight horns. It was formerly widely spread over the Karoo of Cape Colony; it does not occur in Natal.

The Pallah or Impala (*Aepyceros melampus*) is rufous in colour. Near the base of the hind-legs there is a curious gland surrounded by dark brown hair, and secreting a fatty substance. The Horns are lyre-shaped and somewhat irregularly ringed. It is fairly abundant in Zululand and the Eastern Transvaal.

The Springbuck (*Antidorcas euchore*) is dark fawn in colour and has a conspicuous dark brown lateral band on the body. The horns are ringed, lyre-shaped, and the points are curved inwards. The animal does not occur in the Natal area. The springbuck is an exceedingly active animal. In former times vast herds of some 500,000 used to migrate during the dry season from the waterless regions of Namaqualand into the borderlands of the desert. On the advent of the wet season the vast crowd would return to the desert.

The Waterbuck (*Cobus ellipsiprymnus*) is a large antelope, pale brown in colour, and the hair is very coarse. The horns are sub-lyre-shaped and ringed. It is still a fairly common antelope in Zululand.

The Reedbuck (*Cervicapra arundinum*) is of medium size, and is reddish brown in colour. The horns are divergent and curved backwards and upwards : the bases are peculiar fleshy swellings which, according to Kirby, may become hardened and longitudinally corrugated. The animal is found in reedy localities both in Natal and Zululand.

The Rooi Rhebok (*Cervicapra fulvorufula*) resembles the reedbuck, but it is considerably smaller. The animal is mostly found in hilly, stony districts, and it is not uncommon in the Natal area.

The Vaal Rhebuck (*Pelea capreolus*) is greyish brown, and the fur is conspicuously soft and woolly. The horns are slender, straight and ringed for about half their length. The antelope is usually found on the top of hills, and is fairly common in Natal.

The Klipspringer (*Oreotragus saltator*) is characterised by the fact that the usual hair is replaced by short thick bristles. The hoofs are blunt and cylindrical, and the animal walks only on the tips. It is a small antelope with a coat speckled with yellow and brown. The horns are straight and short.

The klipspringer is found only in rocky districts, and is most remarkably agile, leaping from one rock to another with all four feet bunched together. It occurs in Zululand, but is not plentiful.

The Oribi (*Ourebia scoparia*) is a small antelope, rufous in colour, and is characterised by possessing a tuft of long hair below the knees. The horns are thin, short, and slightly curving forwards ; they are closely ringed at the base. Occurs in Natal.

The Steenbok (*Raphicerus campestris*) is a small slender antelope of a reddish brown colour. Horns straight, slender and practically smooth. It is probably the commonest of the South African antelopes.

The Grysbok (*Raphicerus melanotis*) is an animal of small size of a dark reddish brown colour. The hair is coarse with white hair intermixed. Horns resemble those of the steenbok but rather shorter. In the Natal area it appears to only occur on the Drakensberg.

Livingstone's Antelope (*Nesotragus livingstonianus*) is of about the same size as the grysbok, and it is of a deep reddish brown. Horns are short, thick and closely ringed. It occurs in North Zululand in dense bush.

The Duiker (*Cephalophus grimmi*) is of medium size and slender in build. Colour is very variable, it may be yellowish brown, usually speckled, or even silvery grey. Horns straight, slightly divergent, and irregularly ringed at the base. It is the best known of all the antelopes.

The Red Duiker (*Cephalophus natalensis*) is a small animal of a beautiful deep rufous colour. Horns short, thick, and possess several basal rings, tips are striated longitudinally. It occurs in thick bush and is found on the coast extending as far north as Zanzibar.

The Blue Duiker (*Cephalophus monticola*) is the smallest of the antelopes, and is of a bluish brown colour. Horns straight, short, ringed at base and smooth at the tips.

The Red Hartebeest (*Bubalis caama*) is an antelope of large size, and is characterised by possessing high shoulders, and the dorsal surface slopes backwards. It is of a dark brown colour with a black patch on the front of the face. The horns are set on a bony protuberance of the skull, they are ringed and bent first outwards, then inwards and forwards, and the distal third is directed horizontally backwards.

In Natal this antelope is preserved on some inland farms.

Lichtenstein's Hartebeest (*Bubalis lichtensteini*) is of a lighter rufous colour than the red hartebeest, and the horns are flattened at the base. It does not occur in the Natal area.

The Blesbok (*Damaliscus albifrons*), the nearly extinct Bontebok (*Damaliscus pygargus*) and the Sassaby (*Damaliscus lunatus*) are well-known antelopes, but they do not occur in our area.

The Black Wildebeest or White-tailed Gnu (*Connochaetes gnu*) is somewhat ox-shaped, and is dark brown in colour. A tuft of erect black hair is present in the middle of the face between the eyes and the large slit-like nostrils; similar tufts occur on the throat and between the fore-legs. There is a stiff mane. The tail is provided with long white hairs. Horns are thick, they extend downwards and forwards for about half their length and then curve upwards.

This antelope was formerly extremely plentiful in the Orange Free State, but it is now practically extinct in the wild state. It appears to have been confined to the country south of the Vaal River.

In their natural state they live in herds, and are remarkable for their extraordinary antics of prancing and darting about, and lashing with their tails. It is the animal which is found on the arms of Natal.

The Blue Wildebeest or Brindled Gnu (*Connochaetes taurinus*) is characterised by a very thick neck. It is of a bluish grey colour with indistinct brownish transverse bands across the body. The horns are not so expanded as those of the black wildebeest; they extend outwards horizontally and then curve round and the points are directed inwards.

The animal is still fairly abundant in Zululand. It occurs in open country in small herds among which zebra are very generally mingled.



The Eland

The Hippopotamus or Sea Cow (*Hippopotamus amphibius*) has a smooth thick hairless skin which is greyish black. The canine teeth are very large, and the incisor teeth of the lower jaw project horizontally. Large specimens may attain a length of 12 to 14 feet, and the weight may be over four tons.

Among other places the hippopotamus is found in Zululand, in the Komati River, and along the Zambesi.

This animal is very fond of water and can swim with great ease. It sleeps during the day near the river-banks or under the water ; and towards evening it leaves its sleeping-place and walks along narrow tracks, which it forms, to its feeding quarters. Its food consists of grass, twigs, and succulent herbs.



Bush Pig or Bosch Vark

The Bush Pig or Bosch-Vark (*Potamochœrus chœropotamus*) is covered with coarse brown bristles. In front of the eyes there are cartilaginous thickenings of the skin covering a short bony projection of the skull. Ears are pointed with a tuft of long hair at their apices. The lower tusks project outside the jaw to a length of two or three inches. The bush pig lives in dense bush and is very fond of water. It is nocturnal in habits and wanders about in small companies of half-a-dozen or more individuals, and feeds chiefly on roots and nuts. It occurs in Zululand.

The Wart Hog (*Phacochœrus æthiopicus*) is more or less black with a few sparsely-scattered bristles. Along the mid-dorsal line, however, the bristles are thickly set and may be ten or more inches in length. Below the eye on each side there is a large fleshy wart, while further forward there is a more horny wart. The canine teeth of the upper-jaw are large, especially in the male, and are turned upwards, they may reach a length of 15 inches or more. They appear to be chiefly used for digging, while the canines of the lower-jaw, which are much shorter, are provided with sharp edges and are especially used as organs of defence.

The wart hog has a wide distribution in South Africa, and is fairly common in Zululand.

RODENTIA

The order Rodentia includes the gnawing animals, such as hares, rats, mice, and squirrels, with large chisel-shaped incisor teeth in the upper and lower jaws.

In the hares and rabbits there are two pairs of incisors or front-teeth in the upper jaw.

The CAPE HARE (*Lepus capensis*) is speckled grey and yellowish brown, the tail is black above and white below, the ears are rather small and there is no red patch on the nape of the neck. This hare lives in fairly open country, and does not form a burrow of its own. It has a wide distribution through South Africa.

The ROCK HARE (*Lepus saxatilis*) is larger than the Cape Hare, the ears are relatively longer, and there is a red patch on the nape of the neck.

The RED HARE (*Lepus crassicaudatus*) is similar to the Cape Hare in general colour, but it is more rufous below. There is a rufous area on the top of the head and on the nape. The tail is brownish red above and below. The animal lives in colonies in rocky districts.

In the remaining Rodentia there are only two incisors in the upper jaw.

The SOUTH AFRICAN PORCUPINE (*Hystrix africæ-australis*) is dark brown or black. It possesses a crest of long erectile bristles along the nape of the neck ; posteriorly along the back these bristles gradually pass into the characteristic sharp quills, which are banded white and brown. The quills are modified hairs.

The porcupine is nocturnal in its habits, and is a vegetable feeder. During the day it hides under rocks or in secluded crevices.

The CANE or GROUND RAT (*Thryonomys swinderenianus*) is an animal of about 19 inches in length. It is yellowish, speckled with brown, and is covered with bristle-like hair. The ears are very short, as also are the limbs and tail. The animal lives in thick grass and forms a nest above the ground. It is destructive to sugar-cane plantations and is a purely vegetable feeder.

The SPRING-HAAS (*Pedetes caffer*) is brown above and white below, with long hair. The fore-limbs are very short, and hind-limbs are considerably elongated. The tail is long and bushy with a black terminal portion. It is common in the Orange Free State and in the northern portion of Natal.

The animal lives in complicated burrows in small family groups. It hops like a kangaroo and feeds on vegetable substances. The spring-haas is nocturnal, and associated with this habit the eyes are very large and prominent.

The BLESMOL (*Georychus capensis*) and the MOLE RAT (*Georychus hottentotus*) are mole-like in general appearance and habits, but they are true rodents and vegetable feeders.

The STRIPED MOUSE (*Arvicanthis pumilio*), the POUCHED RAT (*Saccostomus campestris*), the FIELD MOUSE (*Mus minutoides*), the WHITE-NOSED RAT (*Mus coucha*), the BLACK RAT (*Mus rattus*) the CHESTNUT TREE MOUSE (*Dendromys mesomelas*), the VLEI OTOMYS (*Otomys irroratus*), the CAPE GERBILLE (*Gerbillus afer*), and the CAPE DORMOUSE (*Graphiurus murinus*), are all more or less well-known and common in Natal.

The RED-HEADED SQUIRREL (*Funisciurus palliatus*) is speckled yellow and black on the body, while the head and tail are rufous. It is common in the bush of Zululand.

An allied squirrel (*Funisciurus frerei*) is also found in Zululand.

CHIROPTERA

The BATS or CHIROPTERA are well represented in our area. They are divided into the FRUIT-EATING BATS and INSECT-EATING BATS.

There are three fruit-eating bats.

The Epauletted Fruit Bat (*Epomorphorus gambianus*) is brown, it has a narrow snout like that of a fox. On the shoulders there are two small eversible pouches, marked by a tuft of white hair, at the base of the inner margin of the ear.

The Smaller Epauletted Fruit Bat is similar in general character.

The Common Fruit Bat (*Rousettus collaris*) is dark brown. The hair at the base of the neck is rather long and coarse, forming a sort of collar, and in the male this hair is yellowish. This bat is particularly fond of the loquat fruit.

The majority of the bats belong to the insect-eating series.

The European Horse-shoe Bat is so-called because the lobed expansion around the nose is horse-shoe shaped.

The African Leaf-nosed Bat (*Hipposiderus caffer*), the Cape Slit-faced Bat (*Nycteris capensis*), the Small Serotine Bat (*Vespertilio minutus*), the Cape Serotine Bat, and the Natal Wrinkle-lipped Bat (*Nyctinomus acetabulosus*) are all fairly common and well-known.

Insectivora

The next order is that of the Insectivora, including such animals as shrews, moles, and hedgehogs. These are small mammals with little projecting knobs or cusps to their cheek-teeth, which do not wear down. There is generally a narrow-pointed snout projecting beyond the mouth. The food consists mostly of insects.

The Elephant Shrew (*Macroscelides proboscideus*) does not appear to occur in our area, but it is one of the peculiar mammals of the Ethiopian Region.

The Large Shrew (*Crocidura flavescens*) is reddish brown above and silvery grey below. The snout is pointed, and the tail is short with scattered white hairs. This species frequently inhabits houses.

The Golden Moles (*Chrysochloridæ*) occur only in Central and South Africa. They have no external ears, and no tail. The third digit of the fore-limbs bears a large claw for digging, while the other claws are small. In the common European mole all the claws of the fore-feet are nearly equally developed.

The Rough-haired Golden Mole (*Chrysochloris villosa*) and the Red Golden Mole (*Chrysochloris hottentota*) occur in Natal. In the latter the hair is reddish and woolly, except at the tips, which are shining and metallic, showing iridescent colours in certain lights.

Cetacea

The order Cetacea includes the whales, porpoises, and dolphins. The body is fish-like in form, smooth, and practically hairless. The "blubber" is a thick fatty layer beneath the epidermis. The tail-fin is *horizontally* directed, while in a fish it is *always vertical*. The fore-limbs are modified into flappers, and the hind-limbs are absent.

The Southern Right Whale (*Balæna australis*) is a whale in which the ordinary teeth are replaced by sheets of whalebone or baleen. It is of a uniform black. Length of head about one-quarter of the total length. There is no dorsal fin. The animal may attain a length of 60 to 70 feet.

This animal frequently visits Table and False Bays in pairs during winter for the purpose of calving. It is occasionally captured off the Natal coast.

The Hump-Back Whale (*Megaptera longimana*) is black above, white below, where in front the skin is longitudinally grooved. The whalebone plates are short, and not of much commercial value. There is a dorsal median fin, and the flappers are very long and narrow.

In length the average is about 40 feet. Cosmopolitan in distribution. The great majority of the whales obtained by the Whaling Company at Durban belong to this species.

The Fin Whale, or Blue Whale as it is called, is rare on this coast. The head is comparatively short, but the body is very long. It has relatively small flippers. As far as is known, the species has not been definitely determined; but it has been referred to *Balænoptera sibbaldi*.

The Sperm Whale or Cachalot (*Physeter macrocephalus*) possesses ordinary teeth and not whalebone. It is dark grey. Head very large and cubical, which is due to the accumulation of the substance known as spermaceti. Flappers short. The average length is 50 to 60 feet. Cosmopolitan in distribution.

Layard's Beaked Whale (*Mesoplodon layardi*) is remarkable in that the only teeth that are present are a pair situated at the middle of the lower jaw, and they curve round above the upper jaw and prevent the animal from opening the mouth except to a very small extent.

The length of an adult animal appears to be about 18 feet. A specimen was recently stranded on the shore near Port Elizabeth, and the skeleton is now in the local museum.

Porpoises with rounded or blunt heads, and Dolphins with pointed narrow snouts are present on the East African sea-board.

Edentata

The order Edentata includes some primitive mammals such as ant-eaters, sloths, and armadillos. They are characterised by the degenerate nature of the teeth. Frequently there is a total absence of teeth, and when present there is no enamel on them.

There are only two examples of this order in South Africa.

The Scaly Ant-eater or Pangolin (*Manis temminckii*) is covered with overlapping brown horny plates. The head is very small and there are no teeth. It is found in the Orange Free State and the Transvaal, but does not occur in Natal.

It burrows in the ground and feeds on termites and ants.

The Aard-Vark (*Orycteropus afer*) is somewhat pig-like in shape; the body is scantily covered with hair; the jaws are provided with widely-separated, flat-crowned teeth with no enamel; the ears are large, and the tail is very thick.

The animal occurs throughout South Africa. It forms large burrows on the open veld by means of its short powerful fore-feet. The food consists of termites which are collected by the long sticky tongue.

The aard-vark is strictly nocturnal, and consequently though fairly common it is seldom seen. It is able to dig into the hardest ground with wonderful facility.



Aard-Vark or Ant Pig

BIRDS

Birds have been divided into those that are flightless, such as ostriches and emus (RATITÆ), and the ordinary flying birds in which there is a prominent ridge or keel to the sternum to which the great muscles moving the wings are attached (CARINATÆ).

In Africa the only ratite bird that occurs is the OSTRICH. This is the largest living bird. The species that is found in South Africa is *Struthio australis*. The male is intense black with white wing and tail feathers ; the female is brownish. In the wild state the ostrich lives in deserts and also in low bush country. It is often associated with herds of zebra and wildebeests. The male is polygamous and is accompanied by several hens. All the hens of one male place their eggs together in a depression in the sand, and the male undertakes the chief duty of incubation, which lasts some seven weeks. In the ostrich-farms the plumes are plucked every eight months.

Of the numerous CARINATÆ it will be only possible in this place to mention a few of the more characteristic forms.

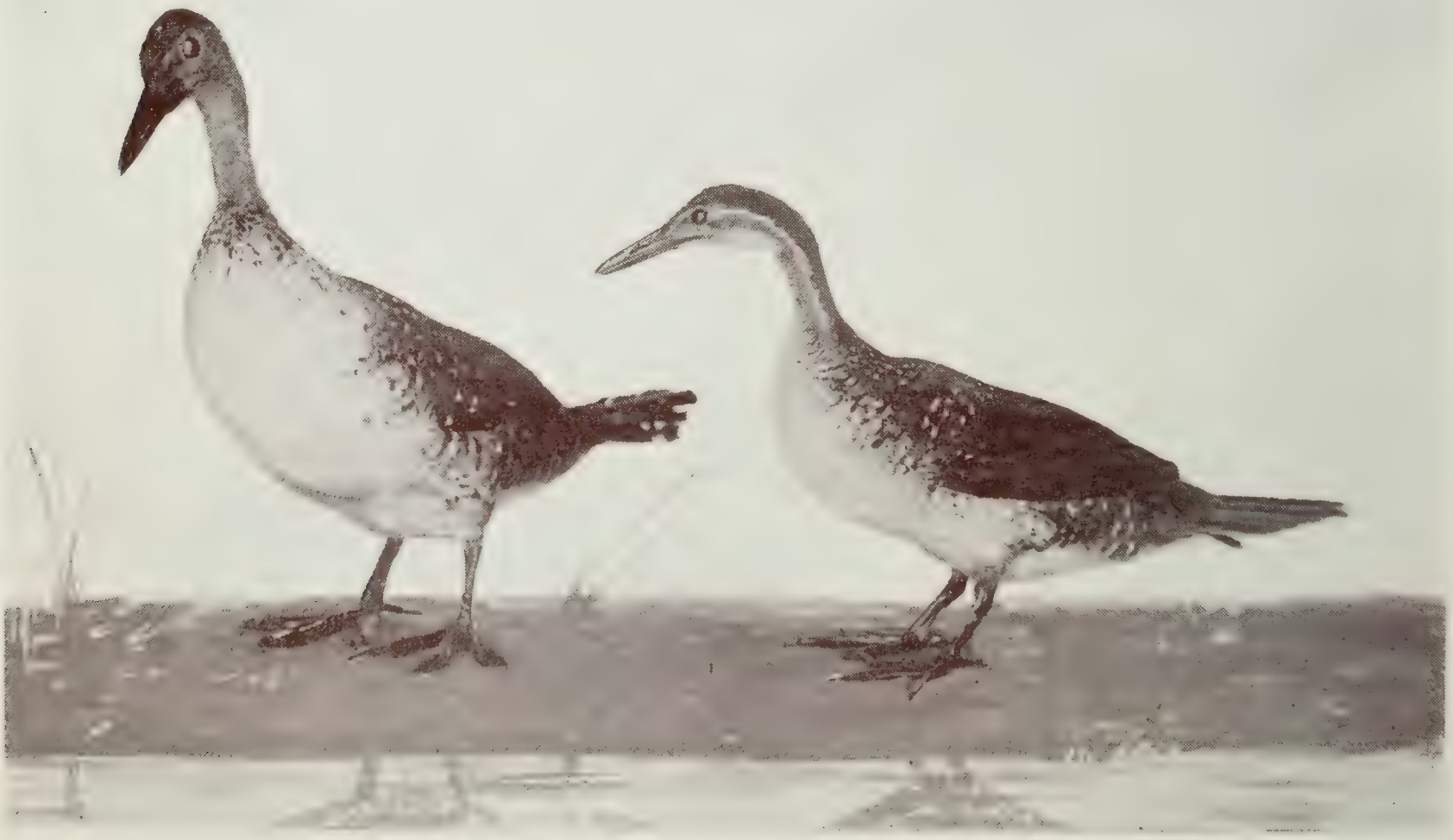
The game-birds are represented by several species of francolins, of which the COQUI FRANCOLIN and the GREY-WINGED FRANCOLIN are well-known. The COMMON QUAIL is abundant at certain seasons, and the HARLEQUIN and ADAMSON'S QUAILS are birds of dainty aspect.

The CROWNED GUINEA FOWL (*Numida coronata*) and VERREAUX'S GUINEA FOWL (*Guttera edouardi*) are handsome birds, and the latter appears to be confined to the Karkloof district of Natal.

The curious family of HEMIPODES, which are like quails in appearance, except that the hind toe is absent, is represented by the SOUTH AFRICAN HEMIPODE *(Turnix nana)*.

There is no great variety of PIGEONS and DOVES ; DELALANDI'S GREEN PIGEON, the SOUTH AFRICAN SPECKLED PIGEON, the RAMERON PIGEON, the CAPE TURTLE DOVE, and several other species are fairly common in Natal.

Among the RAILS there is the handsome GREEN-BACKED PURPLE GALLINULE (*Porphyrio porphyrio*) and several species of Crakes, Moor-Hens and Rails.



Peter's Fin-Foot

Peter's Fin-foot (*Podica petersi*) is an aberrant bird. It is rather Grebe-like in appearance, but it is undoubtedly related to the Rails.

The Grebes are characterised by having the legs set very far back on the body, and are represented by the African Little Grebe (*Podiceps capensis*).

In the Penguins the wings are modified into swimming paddles, and are covered with scale like feathers. The Cape Penguin (*Spheniscus demersus*) is particularly common on the eastern coast of Cape Colony.

The Plover-tribe is represented by the following well-known birds:—Crowned Lapwing, Black-winged Lapwing, Ringed Plover, Sand-plovers, Whimbrel, Common Sandpipers, Green Shank, Ruff, Black-quilled Snipe, and African Painted-Snipe.

The Jacanas are remarkable for the great length of the toes and claws, and they hold their bodies in a peculiarly erect manner. The African Jacana (*Phyllopezus africanus*) is the smallest form.

The Coursers and the Thick-Knees are represented by several species.

The Pratincoles (often called Locust Birds) have long pointed wings; the commoner species being the Black-winged Pratincole (*Glareola melanoptera*).

The Bustards are heavily-built birds with short legs and thick toes, they can run with great rapidity. The plumage is frequently vermiculated with brown on a pale ground. One of the best known species is Ludwig's Bustard (*Neotis ludwigi*).

The largest of all is the Paauw or Kori Bustard (*Eupodotis kori*) which may weigh over 40 lb.

Among the Cranes there is the large Wattled Crane (*Bugeranus carunculatus*), the stately bluish-grey Stanley Crane (*Tetrapteryx paradisea*), and the beautiful Crowned African Crane (*Balearica regulorum*) with a crown of stiff quills on the head.



The Kori Bustard



Crowned African Crane

There are three well-known Ibises; the Sacred Ibis (*Ibis æthiopica*), the Bald Ibis (*Geronticus calvus*) with a scarlet bill and the Hadadah Ibis (*Hagedashia hagedash*) with a beautiful purple sheen on the feathers.

There are several Storks; the Black Stork (*Ciconia nigra*), the White Stork, often called the Large Locust Bird (*Ciconia ciconia*), and the Marabon (*Leptoptilus crumeniferus*). The last is a rare bird in our area, but recently a couple of specimens have been obtained from Newcastle, Natal.

The Hammer Head (*Scopus umbretta*) is a very characteristic and well-known bird. It is dusky brown in colour, and has a large head and thick bill. A pair of these birds will build an enormous nest of twigs and *débris*. The nest is generally placed on a low tree and is used for many years in succession, and a cartload of material may ultimately be accumulated. The bird is held in superstitious respect by the Zulus.



Group of Hammer Heads

Among the Herons may be mentioned the Purple Heron (*Pyrrherodias purpurea*), the Black-necked Heron (*Ardea melanocephala*), the Common Heron (*Ardea cinerea*), and the Great White Heron (*Herodias alba*). The Goliath Heron (*Ardea goliath*) is occasionally met with.

From the Short-billed White Egret (*Mesophoyx brachyrhyncha*) "ospreys" are obtained. These are elongated plumes which grow on the back. The destruction of these beautiful birds for the sake of the "ospreys" should be altogether discouraged. The plumes only appear at the breeding season, and the killing of the parent bird entails the starvation of the young.

The Night Heron, the Squacco Heron, the Buff-backed Egret and several species of Bitterns are familiar birds.

The Greater South African Flamingo (*Phœnicopterus roseus*) occurs fairly plentifully on the lakes and coast of Zululand.

Among the Geese and Ducks the African Dwarf Goose (*Nettopus auritus*) is the most peculiar.

The African Darter (*Plotus rufus*) has a long snake-like neck and a sharp-pointed bill. The bird is very agile in the water and swims with only the head and neck above the surface. The feet are used as paddles, and fish are caught with lightning rapidity.

The Secretary Bird (*Serpentarius serpentarius*) is one of the most characteristic of African birds. The legs are very long, and there is a tuft of long feathers hanging over the back of the head. The middle two feathers of the tail are exceptionally elongated.

This bird feeds largely on reptiles, and destroys a considerable number of poisonous snakes. It should, therefore, be carefully protected.

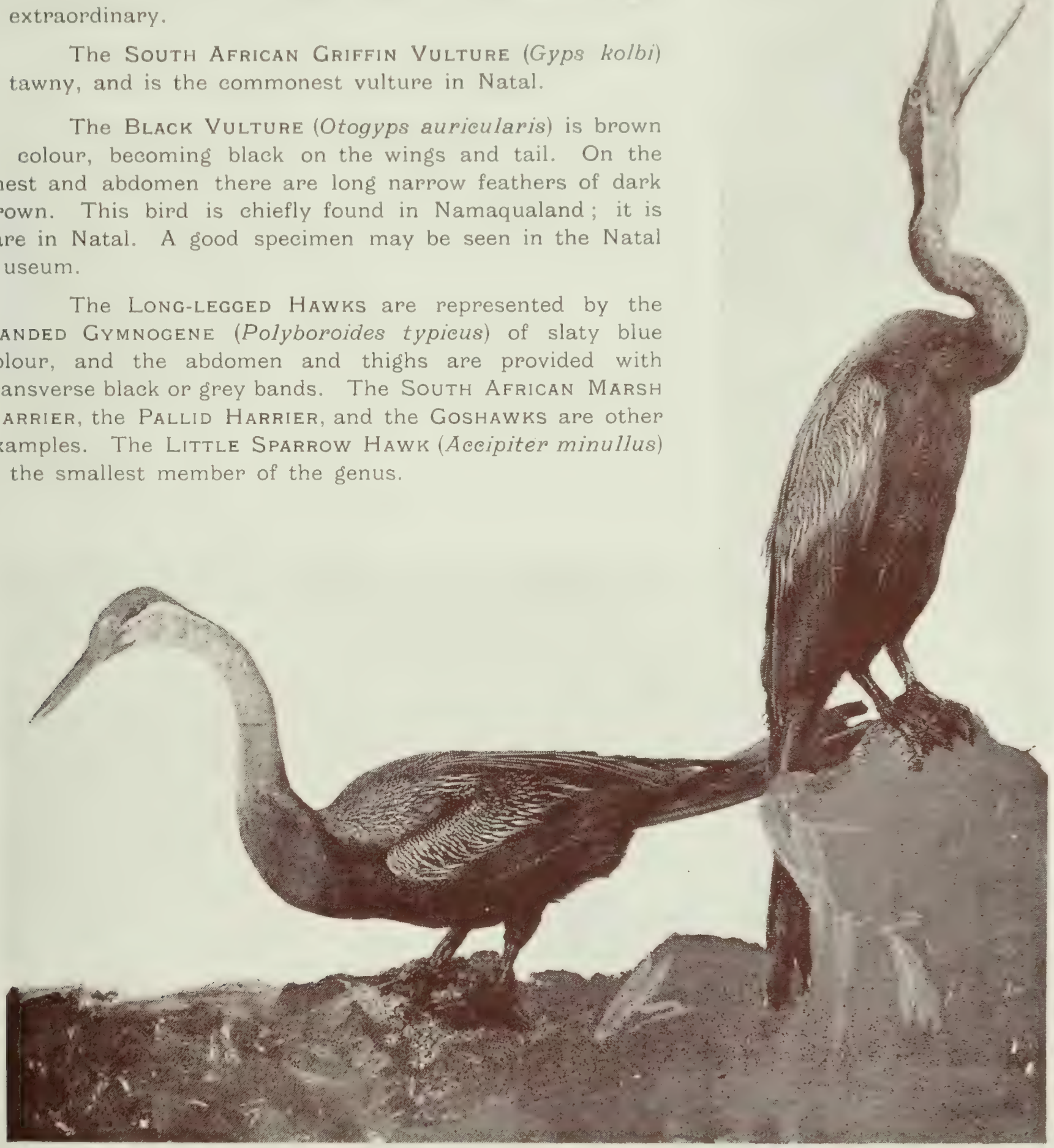
The so-called Birds of Prey have a short sharp-edged beak with the upper bill curved downwards and ending in a pointed hook. All the four toes are provided with strong curved claws. As a rule the female is larger than the male.

The Vultures feed chiefly on dead animals, which are detected by their very keen sight. The power of flight is extraordinary.

The South African Griffin Vulture (*Gyps kolbi*) is tawny, and is the commonest vulture in Natal.

The Black Vulture (*Otogyps auricularis*) is brown in colour, becoming black on the wings and tail. On the chest and abdomen there are long narrow feathers of dark brown. This bird is chiefly found in Namaqualand; it is rare in Natal. A good specimen may be seen in the Natal Museum.

The Long-legged Hawks are represented by the Banded Gymnogene (*Polyboroides typicus*) of slaty blue colour, and the abdomen and thighs are provided with transverse black or grey bands. The South African Marsh Harrier, the Pallid Harrier, and the Goshawks are other examples. The Little Sparrow Hawk (*Accipiter minullus*) is the smallest member of the genus.



The African Darter



The South African Griffin Vulture to the left, and the Black Vulture to the right

The BUZZARDS prey on small mammals, as rats and mice, also on reptiles and insects; and these birds are consequently useful to the agriculturist. They are represented by the JACKAL BUZZARD (*Buteo jakal*) and the RUFOUS BUZZARD *(Buteo desertorum*).

The so-called BEARDED VULTURES include the SOUTHERN LAMMERGEYER (*Gypaëtus ossifragus*), which is a bird of large size and great stretch of wing. It lives on the Drakensberg Mountains and bears off lambs from the plains. The power of flight is very great, and it is stated that the marrow in bones is obtained by carrying them up to a great height and letting them fall ; tortoises are also broken in a similar manner.



Southern Lammergeyer or Bearded Vulture

EAGLES with legs feathered to the toes are represented by VERREAUX'S EAGLE (*Aquila verreauxi*), the AFRICAN CRESTED EAGLE (*Lophoaëtus occipitalis*) the CROWNED HAWK EAGLE (*Spizatus coronaëtus*), and the MARTIAL HAWK EAGLE (*Spizaëtus bellicosus*).

EAGLES with bare legs and tarsus unfeathered are present in the AFRICAN BUZZARD



The Black-breasted Harrier Eagle

Eagle (*Asturinula monogrammica*), the Black-breasted Harrier Eagle (*Circoëtus cinereus*), the Bateleur Eagle (*Helotarsus ecaudatus*), and the African Sea Eagle (*Haliaëtus vocifer*).

There are also species of Kites, Falcons, and Kestrels.

The Owls are characterised by a facial-disc surrounded by a ring of short firm feathers, and there is no naked skin at the base of the bill.

The Spotted Eagle Owl (*Bubo maculosus*) and the Cape Eagle Owl (*Bubo capensis*) are large handsome birds, spotted brown and rufous on a lighter ground. The White-faced Scops Owl, Woodford's Owl, the South African Grass Owl, and the Barn Owl are all fairly common.

These birds are very valuable to the agriculturist in keeping down rats, moles, and other mammal-vermin, and should be protected.

The Parrots are characterised by their short, stout, and strongly-hooked bill, and by their upper jaw being moveably articulated to the skull. The parrots are very poorly represented in Africa. The only common species in our area is the Robust Parrot (*Pœocephalus robustus*).

The KINGFISHERS, distinguished by reason of their short legs and long pointed beaks, are represented by a number of species. The GREAT AFRICAN KINGFISHER (*Ceryle maxima*) is spotted black on a white ground, and has a rufous belly ; it is one of the largest of all the kingfishers ; and the MALACHITE CRESTED KINGFISHER (*Corythornis cyanostigma*) is one of the smallest and most beautiful.

The ROLLERS, which are locally known as "JAYS," are birds of brilliant plumage. The EUROPEAN ROLLER (*Coracias garrulus*) and the LILAC-BREASTED ROLLER (*Coracias caudatus*) are the best known.

The BEE-EATERS are very beautiful birds of small size. They feed on wasps, bees, and other insects.

The NIGHTJARS, or "GOATSUCKERS," have soft owl-like plumage, they feed in the evening or night on insects, and have a very large gape to the mouth. Both the EUROPEAN and SOUTH AFRICAN NIGHTJAR (*Caprimulgus pectoralia*) occur in Natal. The remarkable PENNANT-WINGED NIGHTJAR (*Cosmetornis vexillarius*) has the ninth primary quill feather enormously elongated. It has been stated to have been obtained in Natal, but is certainly very rare in this district.



The South African Ground Hornbill

The HORNBILLS have a greatly developed bill, generally surmounted by a casque. The flight of these birds is curiously noisy. They nest in hollow trees, and in some species the female is imprisoned by the entrance to the nest being plastered up, except for a small slit, by a hard clay substance which is pasted on by the male. The male feeds the imprisoned female while she is incubating the eggs. This habit has probably been acquired as a protection against the attack of monkeys and snakes.

The largest species is the South African Ground Hornbill (*Bucorvus caffer*) which is a handsome shiny black bird, with scarlet around the eyes and on the wattles of the throat. The Crowned and Trumpeter Hornbills are fairly common birds.

The Hoopoes are represented by two species—the South African Hoopoe, which is a small bird of a rufous colour with black and white wings and a large crest, and the Red-billed Wood Hoopoe (*Irrisor viridis*), peculiar to Africa, which is a bird of a beautiful metallic blue with a long tail and a curved red beak.

Several species of Swifts occur.



South African Coly

The Colies are peculiar to Africa, they are often known as "Mouse-birds" on account of their creeping habits. All four toes are directed forwards. They live in small bands, and it is stated that at night they roost in thickly-packed companies hanging head downwards in a cluster in the most remarkable attitudes. The South African Coly (*Colius striatus*) is a well-known bird; it is light brown, and has a long tail.

The Trogons are characterised by exceedingly soft plumage of brilliant colour. The skin is surprisingly delicate, and they are further remarkable in that the first and second toes are directed backwards and the third and fourth forwards. The birds feed on insects and inhabit dense forest. The Natal species is the Narina Trogon (*Hapaloderma narina*) which has a beautiful rose-coloured belly and a shining metallic-green back and chest.

The Cuckoos are well represented by some brilliant species, and the Natal species appear to be all parasitic in depositing their eggs in the nests of a great variety of birds. The Emerald Cuckoo (*Metallococcyx smaragdineus*), the Klaas Cuckoo (*Chrysococcyx klaasi*) and the Golden Cuckoo (*Chrysococcyx cupreus*), all possess plumage of brilliant metallic lustre.

The Coucals, or "Vlei Louries," are allied to the cuckoos. The White-eyebrowed Coucal (*Centropus burchelli*) is a large familiar bird which constructs a dome-shaped nest consisting of sticks, and with an opening on one side.

The so-called Honey-Guides attract man and animals to the nests of bees, in order that they may share the spoil, the grubs in the comb being eagerly devoured. They are also interesting in being parasitic, laying their eggs in the nests of other birds like many cuckoos. There are some five species in South Africa. The commonest in Natal is the Little Honey Guide (*Indicator minor*).

The Barbets are heavily-built birds with stout short bill and bright coloured plumage. They have similar habits to those of woodpeckers. Several species occur in Natal.

The Woodpeckers are provided with a stout wedge-shaped bill which acts as a powerful instrument for cutting into crevices of trees while looking for insects. The tongue is very long, provided with sticky mucus, and is barbed at the tip. The feet and tail are frequently adapted for clinging to tree-trunks. They make deep holes in trunks for their nests. The Cardinal Woodpecker (*Dendropicus cardinalis*) has a scarlet patch on the head. All woodpeckers should be strictly preserved as they are exceedingly useful in keeping fruit and forest trees clear of insect-vermin.



White-crested Plantain-Eater

The beautiful and graceful Plantain-Eaters, often called "Lowries," are peculiar to Africa. They feed on fruit and insects, and build a flat nest like that of pigeons. Nearly all the plantain-eaters have well-developed crests.

The White-crested Plantain-Eater (*Turacus corythaix*) is a fairly common bird on the coast. It is brilliant green, and has a few wing-feathers of an intense crimson, due to the presence of a peculiar pigment known as *Turacin*.

Martins, Swallows, Flycatchers, Bulbuls, Thrushes, Warblers, and Shrikes, are represented by many species.

The brilliantly coloured little SUN-BIRDS have a strong resemblance to the humming birds in general aspect. The bill is long, slender, and curved, the tongue is extensile like that of a woodpecker, and the sexes are generally markedly different from each other. They feed on insects and suck honey from flowers; but they cannot poise in the air. The eggs are two in number, and the nest is hung from the end of a branch. The MALACHITE SUN BIRD (*Nectarinia famosa*), the AMETHYST SUN-BIRD (*Cinnyris amethystina*) and the SCARLET-CHESTED SUN-BIRD (*Cinnyris gutturalis*) are all living gems.

The so-called NATAL SUGAR BIRD, or GURNEY'S LONG-TAILED SUN-BIRD (*Promerops gurneyi*), belongs to a peculiar genus which is only doubtfully placed with the sun-birds.

WAGTAILS, LARKS, DRONGOS, FINCHES, SEED-EATER and BUNTINGS, are fairly represented.

The so-called WEAVER BIRDS are present in considerable variety. They weave remarkable nests which are often suspended at the tips of thin branches of trees and bamboos which overhang the river banks. In this way protection against snakes and carnivora is assured. The LONG-TAILED WIDOW-BIRD (*Chera procne*), called by the Zulus *isisakabuli*, has shining black plumage with scarlet shoulders. It has a slow sinuous flight, and is a very characteristic bird of Natal. The natives make head-dresses of the long tail-feathers.

The STARLINGS include some beautiful birds; the BLACK-BELLIED GLOSSY STARLING (*Lamprocolius melanogaster*) is of a dark bluish-green colour with metallic lustre, and VERREAUX'S GLOSSY "THRUSH" (*Pholidauges verreauxi*) is of a shining purple colour on the back, and white below. The WATTLED STARLING (*Dilophus carunculatus*) is remarkable in possessing curious wattles around the head. It is often called a LOCUST-BIRD because it devours large quantities of these insects.

There are several species of ORIOLES, of which the GOLDEN ORIOLE (*Oriolus galbula*) is the most striking.

Of CROWS there are present in Natal the WHITE-BELLIED CROW (*Corvus scapulatus*), the AFRICAN ROOK (*Heterocorax capensis*), and the WHITE-NECKED RAVEN (*Corvultur albicollis*) with a remarkably massive and powerful beak.

From this brief sketch of the birds of Natal it can be seen that the bird-fauna is a rich one in the number of species. But, on the other hand, the number of individuals that may be met with in any excursion into the country is, as a rule, remarkably few.

The paucity of bird-life, especially in the neighbourhood of towns, allows insect-pests and mammal-vermin to increase to such an extent as to endanger crops of every description.

From the agriculturist's point of view, independently of any æsthetic feeling, it is highly desirable that all insect-eating birds and owls should be encouraged.

The lack of bird-life may be attributed, among other causes, to the universal grass-fires, and to wanton destruction by gun, catapult and bird-lime. In order to protect birds against the latter, the number of species enumerated in the Wild Bird Protection Act has recently been considerably increased.









1.—Drum and Fife Band
2.—Ambulance Corps
3.—Encampment
4.—At the Butts



DEFENCE

CHAPTER XXII

ARMED FORCES

[From "Military Report on Natal," 1909



EARLY in 1855 the first locally-raised force was formed of volunteers from the scattered pioneers of the young Colony ; in the same year this force saw service in the pursuit of the Bushmen who had swooped down from the Drakensberg Mountains and looted cattle. The following year it was sent with a body of Kaffirs to the southern border of the Colony, against a refractory chief named Usidoi. The year 1858 witnessed the despatch, against the chief Matyan, of a punitive expedition, composed of the Natal Carbineers (the force raised in 1855), frontier guards, a small party of Boers, and 500 Kaffirs.

In 1861 the volunteers, in conjunction with Her Majesty's regular forces, guarded the border against a threatened invasion by a powerful Zulu army, and in 1865, during the wars between the Orange Free State and the Basutos, assisted the Imperial troops in effectually stopping the inroads of the latter into Natal.

In 1863 and 1865 laws relating to the maintenance of a "Volunteer Mounted Burgher Force" were passed with the intention of organising the force by counties into divisions, liable to do duty within and 20 miles beyond the county boundary. Enlistment was to be voluntary, with daily pay at six to eight shillings when on active service. The scheme seems

to have been a failure, as the only force raised was one composed of the Weenen burghers. The "Volunteer Force," however, as distinct from the "Volunteer Mounted Burgher Force," and enrolled under different conditions in regard to service, continued in existence.

In 1873 the Volunteer Force formed part of Sir T. Shepstone's escort at the installation of the Zulu king Cetshwayo, and later in that year, together with the Weenen burghers, took a prominent part in the expedition sent against Langalibalele. The disturbances giving rise to this expedition exemplied the necessity for the maintenance of a permanent force trained to the use of arms, and available for service in any part of the Colony. The necessity had, indeed, been recognised as far back as 1861, when a Select Committee recommended the organisation of a mounted police force of 100 men on the model of the Cape Police, but nothing definite was effected until 1874. In that year a law was enacted providing for the permanent maintenance of 50 Europeans, to be designated the Natal Mounted Police; and three years later another Act was passed under which the minimum strength was fixed as 150 Europeans, and power was given to employ the force both within and without the Colony. Provision was also made for a native contingent not exceeding 100 men, but this does not appear to have been utilised to any great extent. In the meantime another law had been passed by which the maximum establishment of the Volunteer Force was raised from 1,000 to 1,400; its actual strength in 1874 was about 670 of all ranks.

A detachment of the Mounted Police formed the escort of Sir T. Shepstone on his mission to Pretoria in 1876, and it remained on duty there during a very anxious period. In 1878 the force was ordered to the southern frontier of the Colony, where the East Griqualand rebellion was then in progress, and it furnished the first troops sent to the border before the outbreak of the Zulu War. When Lord Chelmsford made his reconnaissance from Isandhlwana, 34 men of the police were left in camp, and in the fighting that followed 25 of them were killed.

The Volunteer force was also called out in anticipation of the Zulu War, and assisted the police in guarding the border. It entered Zululand with the Imperial forces, and took part in many engagements, losing 29 killed at Isandhlwana. The members of this force were dismissed to their homes after the battle of Ulundi, when they had completed nine months' continuous service in the field.

A considerable number of other locally-raised corps were also actively employed in the operations in Zululand; of these the largest were:—

	Men.
Baker's Horse	236
Dunn's Scouts	244
Lonsdale's Mounted Rifles	236
Natal Light Horse	138
Natal Horse	158
Natal Native Pioneers	273
Natal Native Horse	129
Shepstone's Native Horse	180
Woods' Irregulars	460
Natal Native Contingent	4,926

In 1888 a law was passed repealing previous Acts relating to volunteers, and placing no limit on the number to be enrolled. The strength of the volunteers at the time was 1,211, while the Mounted Police numbered 178 men. In 1894 and 1895 further Acts were passed, under which the police are still maintained. The force was considerably increased in strength, and its title was changed to "Natal Police," by the omission of the word "Mounted."

The duties of Chief Commissioner of Police and Commandant of the Volunteers, which had been performed for some 24 years by one officer, Colonel Dartnell, were separated in 1897. In the following year the Zululand Police was merged into the Natal Police, and for police purposes the Province was divided into five districts.

Of the opportune and valuable services performed by the local forces during the war with the Dutch Republics only a very brief account can be given here. The Volunteer Force was called out on the 28th September 1899, when their approximate strength of mobilization, as far as can be ascertained, was as follows:—

	Men.
Natal Naval Corps	120
Natal Carbineers	500
Natal Mounted Rifles ...	220
Border Mounted Rifles	280
Umvoti Mounted Rifles	90
Natal Field Artillery ...	120
Hotchkiss Gun Detachment ...	20
Natal Royal Rifles	150
Durban Light Infantry ...	480
Veterinary and Medical Corps	90

Forming part of the Ladysmith garrison were also about 1,000 men of the Volunteers, 436 of the Imperial Light Horse and the Natal Corps of Guides. Five hundred of the Volunteers, 100 of the Light Horse, and a detachment of the Guides constituted the force which made the successful sortie on the night of the 7th December for the purpose of destroying the enemy's guns on Gun Hill.

The approximate number of officers and men raised in the Colony up to the 24th June, 1900, was;—

Unit.	Officers.	Men.
Natal Corps of Guides	—	44
Naval Volunteers	6	135
Natal Carbineers	29	654
Natal Mounted Rifles	16	284
Border Mounted Rifles	14	303
Umvoti Mounted Rifles	9	144
Natal Royal Rifles	8	189
Natal Field Artillery	5	122
Durban Light Infantry	17	503
Pietermaritzburg Artillery	1	29
Volunteer Medical Corps	15	—
Volunteer Veterinary Department ...	9	—
Bethune's Mounted Infantry	38	698
Thorneycroft's Mounted Infantry ...	38	698
Imperial Light Infantry	29	981
Irregular Corps Depôt	2	162
Imperial Light Horse	35	566
Colonial Scouts	41	700
Volunteer Ambulance Corps	72	1,728
Imperial Bearer Corps	30	576
Imperial Hospital Corps	60	540
Total	474	9,056

On the 9th October, 1900, the Volunteers were demobilised, with the exception of the 800 men above referred to, who were formed into the "Volunteer Composite Regiment," and agreed to serve "to the end of the campaign."

The mounted volunteer forces and the Natal Field Artillery were again called out for the defence of the border on the 18th September, 1901, and served until the 16th of the following month.

General Sir Redvers Buller and Field-Marshall Lord Roberts both issued orders conveying their high appreciation of the service of the Natal Volunteers throughout the operations in Natal.

In 1902 the Natal Royal Rifles were reconstructed under the name of the Natal Royal Regiment, consisting of artillery, infantry, and mounted infantry; in the same year a mounted infantry company was added to the Durban Light Infantry.

In 1903 four new corps were added, viz., the Northern District Mounted Rifles, the Zululand Mounted Rifles, the Telegraph Corps, for signalling purposes, and the Service Corps for transport and supply duties.

Under the Militia Act of 1903, which came into force in March, 1904, the local forces were completely re-organised on a Militia basis.

Two of the Natal Police having been murdered on the 8th February, 1906, in connection with the collection of the newly-imposed poll-tax, which became due on the 1st January of that year, "Martial Law" was proclaimed the following day, and a column, mobilised from the Militia, operated under Colonel McKenzie, C.B., C.M.G., in the southern portion of the Colony. The Natal Carbineers, "C" Battery, Natal Field Artillery, Border Mounted Rifles, Natal Royal Regiment, Natal Police and Departmental Corps furnished the troops for these operations.



Militia Headquarters, Durban

Meanwhile, disturbances having broken out in the Mapumulo district, another column under Colonel Leuchars, C.M.G., was mobilized to cope with this rising. The column was formed from the Natal Naval Corps, Natal Mounted Rifles, Umvoti Mounted Rifles, "A" Battery, Natal Field Artillery, Durban Light Infantry, Searchlight Detachment and Departmental Corps, assisted by the loyal chief Sibindi and his levies.

The disturbances having subsided, both these columns were demobilised by the end of March, 1906.

Almost immediately, however, trouble again rose, this time on the borders of Zululand.

Bambata, a truculent chief in Umvoti County, having defied the Government, fled to Zululand, and, co-operating with the aged chief Sigananda, raised the standard of revolt.

The whole of the Active Militia was mobilized, as well as the Militia Reserves of Dundee, Newcastle, Umsinga, Klip River, Umvoti, Kranskop and Durban, and together with the specially raised Royston's Horse and the Transvaal Mounted Rifles (the latter equipped and maintained by the Transvaal Government) were in the field by the end of April. On the 10th May another irregular corps, the Natal Rangers, 800 strong, was also added.

The Zululand Field Force, under Colonel McKenzie, operated in the neighbourhood of Nkandhla for about six weeks until the middle of June, completely breaking up all resistance in that district. At the fight in the Mome Gorge, Bambata and Mehlokazulu (a Zulu leader of 1879) were killed, and Sigananda surrendered a few days later.

On the 19th June fighting again broke out near Mapumulo, and a force moved into that district. After a fortnight's work, in which the rebels suffered heavy loss at Insuzi

and Insimba, the revolt was completely crushed and on the 16th July demobilization commenced. The whole of the forces engaged were demobilized by the 4th September 1906. The cost of the Rebellion of 1906, which was met entirely by the Colony, was £577,783.

Nearly 5,000 natives were tried, convicted, and sentenced to various terms of imprisonment for taking part in this rebellion; 25 ring-leaders being deported to St. Helena. All have now been released.

The following table shows the total number of troops mobilized during the course of the rebellion:—

STRENGTH OF UNITS ON SERVICE DURING THE REBELLION OF 1906.

Unit.	Officers.	Men.	Total.
Natal Carbineers	51	956	1,007
Umvoti Mounted Rifles	20	402	422
Natal Mounted Rifles	30	432	462
Border Mounted Rifles	19	229	248
Zululand Mounted Rifles	9	145	154
Northern District Mounted Rifles	14	225	239
Natal Field Artillery—			
Staff	2	3	5
"A" Battery	5	108	113
"B" Battery	6	95	101
"C" Battery	8	91	99
Pom-Pom	2	21	23
Natal Royal Regiment	12	242	254
Durban Light Infantry	27	604	631
Natal Naval Corps	8	194	202
Search Light Section	1	2	3
Natal Medical Corps	23	99	122
Natal Telegraph Corps	2	41	43
Natal Veterinary Corps	10	3	13
Natal Service Corps	9	111	120
Guides	1	10	11
Transport	2	70	72
Natal Police	40	1,126	1,166
Cape Mounted Rifles	2	68	70
Imperial Staff	5	—	5
Transvaal Mounted Rifles	38	495	533
Transvaal Medical Staff	1	8	9
Staff Militia	18	8	26
Transvaal Volunteer Staff	4	-	4
Chaplains	1	—	1
Royston's Horse	44	789	833
Lancashire and Yorkshire Regiment	7	142	149
Natal Rangers	45	861	906
Klip River Reserves	5	57	62
Dundee Reserves	4	31	35
Estcourt Reserves	8	111	119
Greytown Reserves	2	40	42
Durban Reserves	4	187	191
Dundee District Reserves	6	56	62
Umsinga Reserves	5	41	46
Newcastle Reserves	3	85	88
New Hanover Reserves	5	68	73
Lower Tugela Reserves	1	51	52
Natal Native Horse	8	330	338
Sibindi's Levies	1	—	1
Indian Stretcher Bearers	—	20	20
Zululand Native Police		146	146
Intelligence Scouts	-	41	41
Intelligence Service	1	5	6
Total	519	8,849	9,368



1.—Rifle Practice at the butts
2.—Return of Volunteers after quelling Native Rebellion

In November, 1907, owing to a series of brutal murders of chiefs who had been loyal in 1906 and the suspected disloyalty of Dinuzulu, the arrest of the chief was determined upon.

For this purpose a large force, consisting of the whole of the Militia and Police, was mobilized and the arrest was effected without resistance.

The Militia First Reserves were mobilized in 17 districts and answered the call very creditably.

In some cases men are very scattered and some live nearly 100 miles from the nearest telegraph station, but the difficulty of conveying orders was overcome and mobilization effected in a very short time. In one case a complete reserve had moved 125 miles by rail from its headquarters in 24 hours; in another a reserve of 142 mobilized at Vryheid complete in 24 hours from receipt of notice at their headquarters, although members lived at distances from Vryheid varying from 45 to 90 miles.

On the 30th November, 1907, the Supply Corps received orders at 1 p.m. and despatched by rail from Pietermaritzburg the following day, personnel and equipment for three supply depôts with ten days' supplies for 2,000 men and horses. On the 2nd December a base supply depôt was established at Ginginhlovu ready to issue supplies to troops.

In December, 1907, owing to the prevalance of East Coast fever, ox transport was almost unobtainable and mule wagons had in great part to be used. The transport mules and wagons were, at the time of ordering mobilization, doing duty in 30 different stations in Natal and Zululand, but by the evening of the 3rd December there were concentrated at Ginginhlovu 96 vehicles and 906 mules. These were gradually increased to 124 mule vehicles and 1,176 mules with 38 ox wagons and 5,910 oxen, the railway being used whenever possible to bring these in.

MILITARY EXPENDITURE.—The military expenditure for the year ended 30th June, 1908, was:—

	£	s.	d.
Active Militia	54,838	17	5
Militia Reserves	1,232	4	10
Cadets	5,455	7	5
Rifle Associations	699	7	9
Total	62,225	17	5

POLICE EXPENDITURE, 1909:—

	£	s.	d.
Reserve and District Police	249,768	0	0

IMPERIAL GARRISON.—Ever since its formation as a separate Colony Natal has been garrisioned by Imperial troops, and a small force consisting of one battalion of infantry and detachments of Royal Engineers, Army Service Corps, Army Ordnance Corps, and Royal Army Medical Corps, is still quartered at Pietermaritzburg.

A remount depôt is maintained at Mooi River, at which horses, either imported or locally purchased, are kept for distribution to mounted corps in the up-country stations.

With the exception of Fort Napier (Pietermaritzburg) and of certain lands at Durban, all War Department property in other parts of the Colony where garrisons were formerly maintained has been handed over to the Colonial Government.

Durban being the nearest port for the Transvaal and Orange River Colonies, is also the port of disembarkation for the greater part of the troops and stores for up-country stations.

NAVAL VOLUNTEER RESERVE.—The Governor is empowered by Act No. 33, 1907, to enrol within the Province a force to form a division of the Royal Naval Volunteer Reserve, and to serve in His Majesty's Royal Navy within and beyond the territorial limits of the Province, and to be liable when on actual service afloat or ashore to the provisions of Imperial statutes relating to naval discipline.

The establishment is two companies, with 11 officers, 189 other ranks, and 200 horses.

MILITIA.—Permanent Force.—Under clause 69 of the Militia Act of 1903, the Governor in Council is empowered to establish a permanent militia force, recruited by voluntary enlistment. The force is liable to serve at any place within or adjacent to the Province, and may be called on to aid the police, and when so doing its members have the same authority as constables.

Although the above-mentioned clause exists, financial provision for the permanent force has never been made, and consequently this force does not exist.

Militia.—By the Natal Militia Act of 1903 the Volunteer Act of 1895 was repealed, and the creation of a militia force for the defence of the Colony authorised. Under the Act the Governor of the Colony is appointed Commander-in-Chief of the Militia.

Liability for Service.—By the Militia Act of 1903 every male of European descent (exempted persons and aliens excepted) between 18 to 50 years of age may be called upon to serve in the Militia. Men of a military age are divided into four classes, and would be called out in the following order:—

(*a*) Active Militia, consisting of men who may volunteer and who may be accepted for service in this class, and all other men who may be balloted for service. Total numbers not to exceed 4,000.

(*b*) Militia First Reserve, consisting of all unmarried men from 18 to 30 years of age, inclusive, who are not in the Active Militia. Strength about 5,700.

(*c*) Militia Second Reserve, consisting of all married men between 18 and 30 years of age, and all men from 31 to 40 years of age, inclusive, who are not in the Active Militia.

(*d*) Militia Third Reserve, consisting of all men from 41 to 50 years of age, inclusive, who are not in the Active Militia. Strength of Second and Third Reserves about 10,600.

The Governor may call out the Militia at any time when it appears desirable to do so by reason of war, invasion or insurrection, or danger of any of them. When called out for active service the Militia is liable to serve as long as the Governor in Council may direct. The officer commanding any military district or the officer commanding any corps of active militia, has similar powers in case of a sudden invasion or insurrection, or imminent danger thereof, but he must immediately report the action taken to the Commandant, who will take the pleasure of the Governor in Council on the matter. Until this has been done the Militia so called out is deemed to be on active service.

The Active Militia is liable to be called out by the Governor for active service in aid of the civil power in cases of riot, disturbance of the peace or other emergency.

The Militia is liable to serve anywhere within the Colony or adjacent thereto for the defence of the Colony, with the exception of men of the Militia Third Reserve, who are only liable to serve within their respective military districts.

The Militia Reserve is under the same liability to be called out for active service as the Active Militia, when the Governor in Council thinks it advisable to do so.

The Governor has power to call out the male native, Indian, or coloured population, for military training or service in time of peace, or for active service in time of war. Natives may be formed into contingents and employed as scouts, drivers, bearers and labourers.



Natal Police Headquarters, Pietermaritzburg

The Natal Police

Visitors to Natal, and especially to Pietermaritzburg, are often prepossessed by the smart, soldierly appearance of a few khaki-clad, helmeted men who are to be seen often at railway station, the Provincial Council during the session, the Courts of Justice, and in the streets. Residents of Natal know full well the history of these brown-uniformed men, as for the last thirty-six years they have been to Natal what the famous Royal Irish Constabulary are to Ireland, and the Royal North-west Mounted Police to Canada.

The Natal Police is an ubiquitous body of men, a semi-military force, and the first line of defence, which combines the duties of the police officer with the daily round of the soldier. As a police force proper it is invaluable to the country, the duties consisting principally in connection with an uncivilised race numbering nearly one million, and an Indian population of 100,000 scattered over a country of a more mountainous character than either Great Britain or Ireland, and in some parts where locations have been reserved for natives almost inaccessible.



Natal Mounted Police Headquarters—left view

Regarded as a military force the Natal Police are not one whit less efficient, being always ready for any emergency, and capable of concentrating several fully equipped squadrons at any strategic point, within a very short time, and in the wars wherein they have figured since first they came into being in 1874 they have added laurels to the honour of the Empire. Many a stirring romance might be written concerning this force which has seen more service in the field than any other police force in His Majesty's dominions, and has twice had the unfortunate distinction of being called upon to cover the retreat of British troops.

The onerous task of organising the Police was entrusted to Major-General Sir J. G. Dartnell, K.C.B., C.M.G., V.D., then an *ex*-Major of the 27th Inniskilling Regiment, with the rank of Commandant, which position he maintained till, in 1903, he retired, full of years and honour. Colonel Mansel, C.M.G., next held the appointment until 1906, when it was taken over by the present holder, Lieut.-Col. W. J. Clarke, J.P., with Lieut.-Col. G. S. Mardall, J.P., as Assistant Commissioner and Inspector of Prisons. Both of these gentlemen being the first representatives of the indelible principle of the force which has been its sole secret of thoroughness in the past, *i.e.*, that all the commissions should be given from the ranks. Both the Chief and Assistant Commissioner joined the force as troopers and by indomitable perseverance throughout the thirty-odd years of their service in war and peace, have earned for themselves the distinguished and respected positions which they hold to-day.

For the first twenty years the average strength of the police force did not exceed 200 Europeans. At the present it is composed of 39 officers, 174 non-commissioned officers and 864 men, embracing mounted and dismounted police, railway, water and township police, gaolers, warders, convict guards, and Criminal Investigation Department, distributed amongst 154 outposts and 40 goals scattered throughout Natal, the Northern Districts and Zululand, and covering an area of 52,213 square miles. The only exceptions being the boroughs of Pietermaritzburg and Durban which supervise their own areas by police maintained by their Corporations. Besides Europeans, the force contains 1,631 natives and 186 Indian—mounted and dismounted—constables. A large proportion of the Europeans speak Dutch, Zulu, or Indian dialects.

The barracks are fitted with electric light, telephones, and all the latest hygenic appliances. Tennis courts, cricket, football, and hockey grounds are in great evidence, while a swimming bath, 70 feet long, and a fives' court are about to be constructed. The building in itself has accommodation for 140 men and 150 horses, and comprises the offices of the Chief Commissioner, Assistant Commissioner and Inspector of Prisons, Accounting Officer, and Quartermaster. The latter having under his control the supervision of a qualified staff of skilled workmen (also members of the force), such as tailors, farriers, saddlers, armourer, carpenters, and bricklayers, by whom the entire equipment of kit and repair of headquarters and outstations are maintained.

There is also a fully-equipped hospital with doctor and nursing staff, and a veterinary department with surgeon and assistant.

The Headquarters Staff supply an excellent military and string band, and the force supports a regimental illustrated magazine, entitled, *The Nongqai*.

The headquarters of the Criminal Investigation Department and Finger Print Bureau are in the centre of the town, and from statistics published by this department we are told that the Natal Police made 57,041 apprehensions in 1909 in connection with the maintenance of law and order ; recovered 1,322 lost or stolen stock ; and further that the revenue accounted for by them amounted to £85,545. All these figures are much lower than they have been for some years prior to 1909, but by them the reader will be able to draw his own conclusions as to the usefulness of the force apart from a purely military point of view. The estimated cost of salaries, etc., of this body of men was £249,768 in 1909, and exclusive of the revenue derived by them it is calculated that, taken individually, they are the cheapest police force in any British Colony, and each member out of his monthly salary provides for the purchase and maintenance of his horse, saddlery, uniform, food, and forage.

Mention must be made in passing, that this force was the first to introduce, in 1902, the Finger Print System to South Africa and which has proved so invaluable in the facilitation of identification. It is considered that the Bureau in Pietermaritzburg contains nearly three times as many records of criminals than does the Central Bureau of the Metropolitan Police in Scotland Yard, and, in consequence, the identifications are more numerous.

In 1898 the Cape Police were reorganised on the lines of the Natal Police, and in 1906 Colonel Clarke was sent up to Johannesburg by the Natal Government, at the special request of the Transvaal, to reorganise the South African Constabulary on similar lines.

In addition, and in conjunction with the ordinary military and civil duties of the police aforementioned, members of the force fulfil the functions of Ammunition, Pass, Election, Customs, and Immigrations Restriction Officers ; License, Beacon, Sanitary, and Weights and Measures Inspectors ; Tax Collectors, Cadet Instructors, Quarantine Guards, Deputy Sheriffs, Prosecutors, Messengers of Court, Interpreters, Post Masters, Pound Keepers, and P.W.D. Sub-Overseers.



"At Stables," Natal Mounted Police Headquarters, Pietermaritzburg

In 1909 the Goals Department supplied skilled and unskilled labour to the Public, Harbour, Railway, and Military Departments to the extent of £22,808, and also very considerably reduced their cost of upkeep by manufacturing uniforms, postal bags and baskets, concrete sections, mats and rope work, tinware, and carpentry work in general, for the use of the Government Departments.

The following is a list of the principal events in which the Natal Police have taken part :—

1874.—The newly-raised force was employed in patrolling the Langalibalele location, which had been the scene of a rebellion.

At the conclusion of the trouble in Weenen County, the force was moved down to Alfred County to enforce the payment of a fine imposed upon another rebellious chief.

1876.—Removal of a rebellious tribe from Alexandra County to Pondoland.

1877.—The police formed the escort to the Special Commissioner, Sir Theophilus Shepstone, and were the only troops with him when he proclaimed the annexation of the Transvaal. The men were practically laagered up in Pretoria for some time expecting an attack from the Boers. At the end of May the 13th Regiment arrived to relieve the police, who returned to Pietermaritzburg. In the same year another detachment of police was despatched to Weenen County to suppress an insubordinate chief.

1878.—The force was assembled to take part in the East Griqualand Rebellion with the 3rd Buffs, and was employed in escorting Griqua prisoners from the border to Durban. The latter part of the year saw all the men (except the Harding Detachment) assembled at Helpmakaar, watching the Zulu border until troops arrived.

1879.—Lord Chelmsford marched his column into Zululand on the 11th January, and on the following day the police took part in the engagement at Sirayo's Kraal. On the 22nd January occurred the disaster at Isandhlwana, when 26 of the police were killed, and nine made their escape. On the same day the Zulus were driven off at Rorke's Drift, when the police lost one man killed.

The defence of the post at Helpmakaar was left to the police until the arrival of reinforcements. A detachment of the men escorted the body of the Prince Imperial to Durban, and then returned again to the front as bodyguard to the Commander-in-Chief in South Africa, Sir Garnet Wolseley, travelling *via* Rorke's Drift and Isandhlwana to Ulundi, whence all the police proceeded with Lord Gifford in pursuit of Cetshwayo. The men were at the Ngoma Forest when the fugitive king was captured. The police then joined Colonel Sir Barker Russell's flying column, and took part in the destruction of Manyanoba's kraals and caves at the Intombi River, not far from the present Luneberg Camp.

1880.—The military authorities asked for a detachment of 20 men to act as an escort to the *ex*-Empress of the French through Natal and Zululand, the expedition being under the control of General Sir E. Wood.

Later in the year the whole force (except the Harding Detachment) was moved to the Basuto border to protect the passes, while the Cape forces were operating from the south. The force moved from the Oliver's Hoek Pass, near Harrismith, to the Bushman's Nek Pass, on the East Griqualand border—an enormous extent of very rugged country.

In December the force was split into two detachments, one of which proceeded to Newcastle and beyond, to protect the border until troops could be pushed up in the attempt to relieve the beleagured garrisons in the Transvaal. Until the actual advance of Colonel Colley's troops took place, the Natal Mounted Police did all the scouting and patrolling, and were out night and day for several weeks.

1881.—The Natal Mounted Police took part in the battle of Lang's Nek when the troops met with a reverse, and the same night they were ordered back to Newcastle to keep open the roads for the arrival of reinforcements under General Wood, with whom came the remaining half of the police from the southern border.

The police then held post on the road and small forts round Newcastle until the Convention was signed in March, 1881. In December, 1881, the first small outstations were formed. Prior to that date the only stations were Pietermaritzburg, Greytown, Estcourt, and Harding. The force had hitherto been semi-military in its character, but now an effort was made in legitimate police work.

The force had gained for itself the very highest testimonials as to efficiency, from such authorities as Lord Wolseley, Sir Evelyn Wood, Sir George Colley, Sir H. H. Gifford, and Sir Barker Russell.

1884.—At Easter practically the whole force was assembled at the Volunteer Encampment for drill, and almost immediately afterwards proceeded to Krantzkop to guard the Tugela River border during the disturbance in Zululand, which duty occupied a period of six months.

1887.—The force was moved down to Alfred County to suppress a disturbance.

1890, 1891, 1892, 1893.—Men were hurriedly despatched to the Pondoland border, where for three years a large force was kept during the intermittent fighting across the Umtamvuna, and large numbers of refugees were protected in the Police Camp.

1894 saw the conclusion of the Pondoland troubles, and also brought about a great change in the police system. Under Responsible Government the title of the force was changed to "Natal Police," and the Government police forces were amalgamated. A Criminal Investigation Department was established, and the efficiency of the new force increased by leaps and bounds, until it came to be looked upon as the model police force of South Africa.

1897.—The first field force was hurriedly raised in January in order to guard the southern border, across which the Le Fleur rebellion was spreading. The detachment patrolled from Union Bridge to Christison's Drift, near the present Underberg Magistracy, for some months, and was then sent down to the Pondoland border until the end of the year.

1899.—A strong detachment was sent to Zululand and met Dinuzulu on his return from St. Helena. This detachment remained at Nongoma for the whole of the year to keep the peace between Dinuzulu and Sibepu.

1899 to 1902.—A detachment of the police sent to Oliver's Hoek in August may be said to have been the first of the Colonial troops despatched to the front in Natal. Another detachment of 100 men was ordered to act as General Penn-Symons' bodyguard, but a day or two before he left for the front the detachment was ordered to Inchanga to protect the tunnel and the Botha's Hill cutting, where the Boers were expected to destroy the line. A party of 25 men acted as General Buller's escort during the whole time he was in the country, and took part in all the engagements with his troops. Another detachment was attached to the Composite Regiment with the Relief Column under Major Gough. About 84 men took part in the defence of Ladysmith, being attached to the Volunteer Brigade, under Colonel Royston. A detachment served under Colonel Leuchars at the Tugela Ferry in the Relief operations. There was also a detachment on the Zulu border of the Transvaal. Had these scattered bodies been united the Natal Police would have had a fairly strong regiment, and should have been able to gain some glory, but, as it was, the detachments were too small to win distinction, except that at Mahlabitini a party of 20 men drove off a

Boer raiding party, when six police were killed. A large number of men were kept in the field until the close of hostilities, some with General Dartnell's column others as Intelligence officers and guides, while small parties garrisoned posts along the border.

1902.—The force was represented at the Coronation of King Edward VII.

1903.—A detachment was hurried down to Alexandra County to stop a big faction fight, and remained for some time in the neighbourhood.

1905.—Men were despatched to Umsinga to prevent a faction fight and were successful in preventing the obliteration of a small tribe on the Umsinga Mountain.

Towards the close of this year the police were re-armed with the latest pattern Lee-Enfield service rifle, and the workmanship of the whole force greatly enhanced thereby. At the present time the police can probably put forward as strong a good-all-round team of shottists as any Imperial regiment or police force in the Empire, and have won the Team Championship in Natal. The corps is also armed with the service pattern Webley revolver.

1906.—The murder of Sub-Inspector Hunt and Trooper Armstrong at Byrnstown led up to the Natal Native Rebellion. A night attack was made on the police in Impanza Valley on the 4th April, when four of the Natal Police were killed. Night attacks, and imaginary night attacks, have caused many panics in South African warfare, and in this instance it is reported that no men could have acted more coolly or displayed better courage and discipline than on this occasion. Later on the police were employed at the Nkandhla, and took part in the fight at Bebe Ridge, and the final slaughter at the Mome Gorge.



The Square, Natal Mounted Police Headquarters, Pietermaritzburg

At the conclusion of the Rebellion, Colonel Sir H. E. McCallum, K.C.M.G., R.E., the late Governor of Natal, in reviewing the troops who took part in the suppression, said, amongst other things :—

"In the returns given me last night there was no mention made of the Natal Mounted Police. I am glad to see on parade to-day a detachment of that body. Each phase of the campaign, the first and the second, began with the murder of the police officers. It has struck me more than anything else that in the testimony which was given in the Richmond Court Martial against natives who attacked and killed the police—the police gave their evidence without the slightest vindictiveness, and in a most cool and collected manner. The coolness which they displayed in times of peace has been exemplified by their magnificent services during the rebellion. The General himself having told me that he could not wish to see a better body of men."

1907.—Four squadrons of police were concentrated at Nongoma in Zululand, when the chief Dinuzulu was arrested for the second time and brought down to Natal.

1908.—The Police Reserve returned to headquarters at the conclusion of the trial and conviction of the chief Dinuzulu, having been in the field for a continuous period of 2¼ years.

In November of the same year the police mustered 500 of all ranks at the King's Birthday Review held in Pietermaritzburg, when they were presented with the Rebellion medals by Lieut.-Colonel Sir Matthew Nathan, K.C.M.G., then Governor of the Colony.

1909.—The police attended the usual King's Birthday Review. In the same month a large dismounted parade, exclusively for the Natal Police, was held on the Market Square, Pietermaritzburg, at which the Governor, Sir Matthew Nathan, presented long service medals to 28 men and bid farewell to the force in an eloquent and eulogistic speech.

1910.—General Lord Methuen, K.C.B., K.C.V.O., C.M.G., Acting-Governor of Natal and General Officer Commanding of South Africa, held a headquarter inspection and expressed his complete satisfaction with everything he saw there.

1911.—The force was represented at the Coronation of King George V.

The foregoing brief particulars will help to show that the force has a record second to none. On innumerable occasions the Natal Police have been called upon to suppress faction fights and perform duties which would take up too much space to relate here.

In consequence of the Union of South Africa the headquarters of this old-established corps are now situated at Pretoria under the supreme command of Colonel Truter, the Commissioner of Police for South Africa.



Presentation of Long-Service Medals to Natal Mounted Police by Sir Matthew Nathan



HISTORY OF THE PARLIAMENT OF NATAL

CHAPTER XXIII



THE history of the Parliament of Natal may with justice be said to be the history of the Colony itself, for every vicissitude of early colonial life is reflected in its annals.

Natal became a British Dependency in 1843, but it was entirely administered from the Cape of Good Hope until 1845, in April of which year Letters Patent were issued constituting the District of Natal a separate Government, to be administered by a Lieutenant-Governor. Mr. Martin West was appointed the first Governor, and was assisted by an Executive Council consisting of the officer commanding Her late Majesty's forces in the District; Colonel Boyes of the 45th Regiment; the Secretary to the Government, Mr. Donald Moodie; the Surveyor-General, Dr. William Stanger; the Collector of Customs, Mr. W. S. Field, and the Crown Prosecutor, Mr. Walter Harding. Prior to the date of Union, Parliament was composed of a Legislative Council of 13 members and a Legislative Assembly of 43 members, and may rightly be said to be the lineal descendant of that first Executive Council.

A Guide Book of this nature is hardly the medium for a constitutional history of the Colony, so that it will be sufficent to say that until 1856 the District was subordinate to the Cape Colony, but in that year was erected into a separate Colony to be administered by a Governor assisted by an Executive and a Legislative Council. The first Legislative Council met in Pietermaritzburg on the 23rd March, 1857, and consisted of four non-elective and 12 elective members. From time to time the number of members of this Council was increased, and in 1893 it was composed of 24 elective and seven non-elective members. Of the latter five were Government officials in charge of the various departments of the Civil Service.

Not so many years after the grant of this form of self-government an agitation sprang up in the Colony having for its object the obtaining of responsible government in its fullest sense, and in both press and Parliament it is easy to trace the gradual progress of the



First Natal Ministry

Back row (from left to right): F. R Moor, M.L.A., Secretary for Native Affairs: Harry Escombe, Q.C., M.L.A., Attorney-General: G. M. Sutton, M.L.C., Treasurer: Front row: T. K. Murray, C.M.G., M.L.A., Minister of Lands and Works; Sir John Robinson, K.C.M.G., M L A., Prime Minister, Colonial Secty., and Minister of Education.



Last Natal Ministry

Back row (from left to right): T. F. Carter, K.C., M.L.A., Attorney-General; W. A. Deane, M.L.A., Minister of Agriculture; A. E. Ord, Executive Engineer.
Front row: C. O'Grady Gubbins, M.L.A., Colonial Secty. and Minister of Education. The Right Hon. Sir F. R. Moor, P.C., M.L.A., Prime Minister & Minister for Native Affairs.
Col. E. M. Greene, K.C., M.L.A., Minister for Railways and Harbours.

movement. The Home Government showed itself sympathetic in this matter and a long series of negotiations culminated in 1893 in the passage through the Legislative Council of Law No. 14, 1893, commonly cited as the Constitution Act of 1893, "To provide for the establishment of Responsible Government in Natal."

The Constitution Act, which gave the fullest possible measure of self-government that could be granted to a Colony, provided for a Legislative Council of 11 members, and a Legislative Assembly of 37 members. Owing to the annexation of Zululand and the Northern Districts these figures, as previously stated, now stand at 30 and 43 respectively.

The history of the Parliament of Natal has been crowded with incident since 1893. the years have brought war and rebellion. On two occasions the boundaries of the Colony have been enlarged, and the added territories have each brought with them special responbilities undreamt of when self-government was first granted. The exigencies of political life have made greater and greater calls upon public men, but it may with reason be said that those calls have been cheerfully responded to, and that the electors of the Colony may well be satisfied with the administration of its Parliamentary business.

It is generally recognised that the Parliamentary buildings, if not the most pretentious, are at all events one of the most comfortable in South Africa.

Colonial life is ever changeable, and this is reflected in the list of the men who have presided over the debates in the two Houses. Since 1893 the Legislative Council has had four Presidents : the Hon. Mr. Polkinghorne, Sir William Arbuckle, the Hon. Mr. Crawford, and Sir George M. Sutton ; while in the Assembly there have been the same number of Speakers : the Hon. Mr. Stainbank, the Hon. Mr. Smythe, Sir J. Liege Hulett, and the Hon. Mr. Archibald. As for the Executive Government. Natal counts no less than six Ministries since 1893. and while Sir John Robinson was the first Prime Minister he was succeeded in more or less quick succession by the Right Hon. Harry Escombe, Sir Henry Binns, Lieut.-Colonel Sir Albert Hime, Sir George Sutton, the Hon. C. J. Smythe, and the Right Hon. Frederick Robert Moor.

List of Governors

1873.—Sir Benjamin C. C. Pine, K.C.M.G., Lieutenant-Governor.

1875.—Major-General Sir Garnet J. Wolseley, K.C.B., G.C.M.G., Administrator.

1875.—Sir Henry E. Bulwer, K.C.M.G., Lieutenant-Governor.

1879.—General Sir Garnet J. Wolseley, G.C.B.. G.C.M.G., Governor.

1880.—Major-General Sir George Pomeroy-Colley, K.C.S.I.. C.B., C.M.G., Governor.

1881.—Lieutenant-Colonel Charles B. H. Mitchell, C.M.G., Administrator.

1882.—Sir Henry E. Bulwer, K.C.M.G. (G.C.M.G., 1883), Governor.

1885.—Sir Arthur E. Havelock, K.C.M.G., Governor.

1889.—Sir Charles B. H. Mitchell, K.C.M.G., Governor.

1893.—Francis Seymour Haden, C.M.G., Administrator.

1893.—The Hon. Sir Walter Francis Hely-Hutchinson, K.C.M.G. (G.C.M.G., 1897), Governor.

1901.—Sir Michael H. Gallwey, K.C.M.G., K.C., Administrator.

1901.—Colonel Sir Henry Edward McCallum, K.C.M.G. (G.C.M.G., 1904), A.D.C. TO H.M., Governor.

1904.—Sir Henry Bale, K.C.M.G., K.C., Administrator.

1904.—Colonel Sir Henry Edward McCallum, G.C.M.G., A.D.C., Governor.

1907.—The Hon. W. H. Beaumont, Administrator.

1907.—Lieut.-Colonel Sir Matthew Nathan, K.C.M.G. (G.C.M.G. 1908), C.M.G., Governor.

1909.—Sir Henry Bale, K.C.M.G., K.C., Administrator.

1910.—General the Right Hon. Lord Methuen, G.C.B., K.C.V.O., C.M.G., Governor.



The Hon. C. J. Smythe

Administrator of Natal Province

SENATE OF THE UNION OF SOUTH AFRICA

Nine Senators representing Natal:

The Right Hon. Sir F. R. Moor, K.C.M.G., P.C., D.C.L.
The Hon. Dr. C. O'Grady Gubbins.
The Hon. Charles Hitchins.
The Hon. H. D. Winter.
The Hon. Sir J. Liege Hulett, KT.B.
The Hon. Marshall Campbell.
F. O. F. Churchill.
T. J. Nel.
F. A. R. Johnstone.

UNION HOUSE OF ASSEMBLY

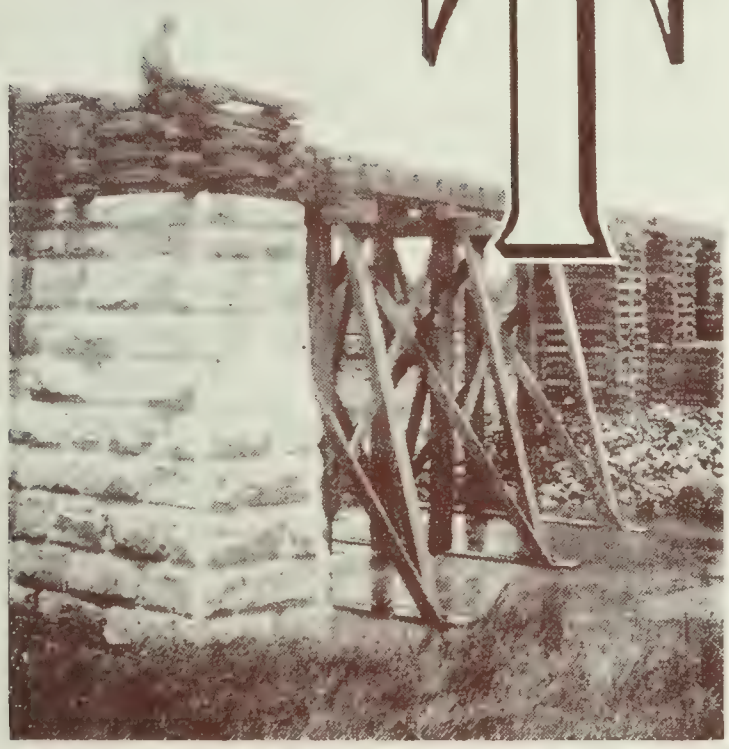
Seventeen Members representing Natal Constituencies:—

Dundee	Hon. Thos. Watt, C.M.G., J.P.
Durban—Berea	James Henderson.
" *Central*	Sir D. Hunter, K.C.M.G.
" *Greyville*	Hon. J. G. Maydon.
" *Point*	Major P. A. Silburn, D.S.O.
" *Umbilo*	C. P. Robinson.
Klip River	H. Wiltshire, J.P.
Newcastle	H. J. Bosman.
Pietermaritzburg North ...	T. Orr.
" *South* ...	W. H. Griffin.
Umlazi	A. Fawcus.
Umvoti	Lieut.-Colonel G. Leuchars, C.M.G., D.S.O.
Umzimkulu	F. U. Reynolds.
Victoria County	C. Henwood, J.P.
Vryheid	W. M. Myburgh.
Weenen	H. M. Meyler.
Zululand	The Hon. W. F. Clayton.



PUBLIC WORKS DEPARTMENT

CHAPTER XXIV



THE Public buildings, roads, highway bridges, punts or pontoons, Village waterworks, Irrigation works, etc., etc., are controlled by the Chief Engineer, Public Works Department (J. F. Evelyn Barnes, Esq., C.M.G., M.I.C.E.), whose staff, as at present established, consists of two District Engineers—one for the Coast belt and Zululand, worked from the District Office at Durban, and one for the Northern Districts, worked from Ladysmith. Each of these offices has its District Accountant, Field Assistant, and District Foreman and workshops. The Midlands District is just now being controlled without a District Engineer, from headquarters at Pietermaritzburg, where are also located the architectural and accounting branches, as well as the Public Works yard and shops, with the District Foreman in charge.

PUBLIC BUILDINGS.—These embrace Court-houses, Magistrates' residences, Post and Telegraph offices, Natal Police quarters and barracks, gaols, schools, etc., for every town and village throughout the Province; while in Pietermaritzburg (the seat of Government) there are also Government House, the Legislative Buildings, General Post Office, Government Offices, Natal Government Asylum, Maritzburg College, Museum, Grey's Hospital, Drill Hall, Central Goal, and Abattoir. In Durban the principal Government buildings are—King's House (the Governor's coast residence), the Court House, Post Office, Customs House, Drill Hall, Water Police Station, and several important schools.

The value of the foregoing Natal public buildings in round numbers is over £1,500,000 sterling.

ROADS.—As in other countries, the growth of road mileage in Natal is fairly representative of the development of the country, In 1875 the Natal public roads totalled 500 miles. In 1894 (the year in which the Colony adopted Responsible Government) the mileage



Reinforced Concrete Bridge on the Umbilo near Pinetown, on the road to Mariannhill. Built by P.W.D., 1910



Pietermaritzburg-Durban Road

had grown to about 2,750 miles, while to-day the Government roads total over 5,500 miles. Of these more than four-fifths are formed and drained, and over 500 miles are also hardened and macadamised. The remainder are chiefly mountain roads which have yet to be improved.

The upkeep of roads is paid for from revenue of the Colony. Taking four decades as an example, the expenditure and mileage is shown by the following statement :—

Year.	Mileage in round numbers.	Votes.
1880 ...	2,000 ...	£22,000
1890 ...	2,500 ...	£41,500
1900 ...	3,000 ...	£57,600
1910 ...	5,500 ...	£65,000

For the greater part roadwork is carried out departmentally. There are, however, 735 miles let out to contract for maintenance.

The road staff consists of 11 road superintendents, each in charge of a sub-district and responsible for about 500 miles.

Under these superintendents are road overseers with gangs of natives, each party having the upkeep and improvement of lengths varying from 75 to over 100 miles.

Owing to the hilly and broken nature of Natal, the gradients obtaining are naturally steep. Of late years, however, considerable strides have been made in the direction of reducing these. This class of work is one which must be continued, the more so as, owing to the depletion of ox transport by the ravages of East Coast fever, and the adoption of mules, horses, and donkeys, the easing of gradients becomes essential to the traffic of the Province.

BRIDGES.—Prior to 1894 some 34 bridges had been built. Under Responsible Government, however, bridge building went apace, so that to-day there are 110, and with 26 newly constructed, Natal entered the Union of South Africa, with 136 highway bridges,



Inyoga Bridge after lifting No. 3 girder, with Hart's River Bridge in the distance, Feb., 1910.
Built by P.W.D.







1.—Constructing Ingogo Bridge; No. 3 girder ready for lifting into position
2.—Reinforced Concrete Bridge, near Pinetown
3.—Span of Vants Drift · Buffalo Bridge

representing an initial cost of about £400,000, and consisting mainly of concrete piers and abutments with superstructures of iron or timber. These latter are as rapidly as possible being substituted by iron.

Bearing in mind the hilly nature of the country already referred to, and the fact that the rainfall—though averaging but 42 inches per annum—is frequently torrential, instances of over 10 inches in 24 hours being numerous, the value of, and indeed the absolute necessity for, good roads and bridges will be readily understood; while it is equally apparent that in order to keep apace with and aid the progress of the Province a liberal policy of road and bridge construction must be continued in the future.

Under the auspices of the Department of Agriculture and the Natal Native Trust several important Irrigation schemes have been carried out. There is, however, room for a much wider adoption of irrigational agriculture throughout the Province, and doubtless as farming becomes more intensive, the valuable rain and river water will be impounded and converted "to the uses and comfort of man."

VILLAGE WATER SUPPLIES.—Under Act 19 of 1897 provision has been made whereby villages which have not taken the control of their own affairs under Township or Borough Acts, may borrow from Government on easy terms the funds necessary for, and may carry out, Water Supply schemes.

This Act has been largely availed of, and most of the villages of Natal are now possessed of good supplies of water laid on in pipes.

These water works have been carried out under the supervision of the Chief Engineer, Public Works Department, and the Department is also responsible for the maintenance and upkeep of the several schemes, as also for the collection of rates during the period of the loans, *i.e.*, for the term of 60 years.



Road Transport

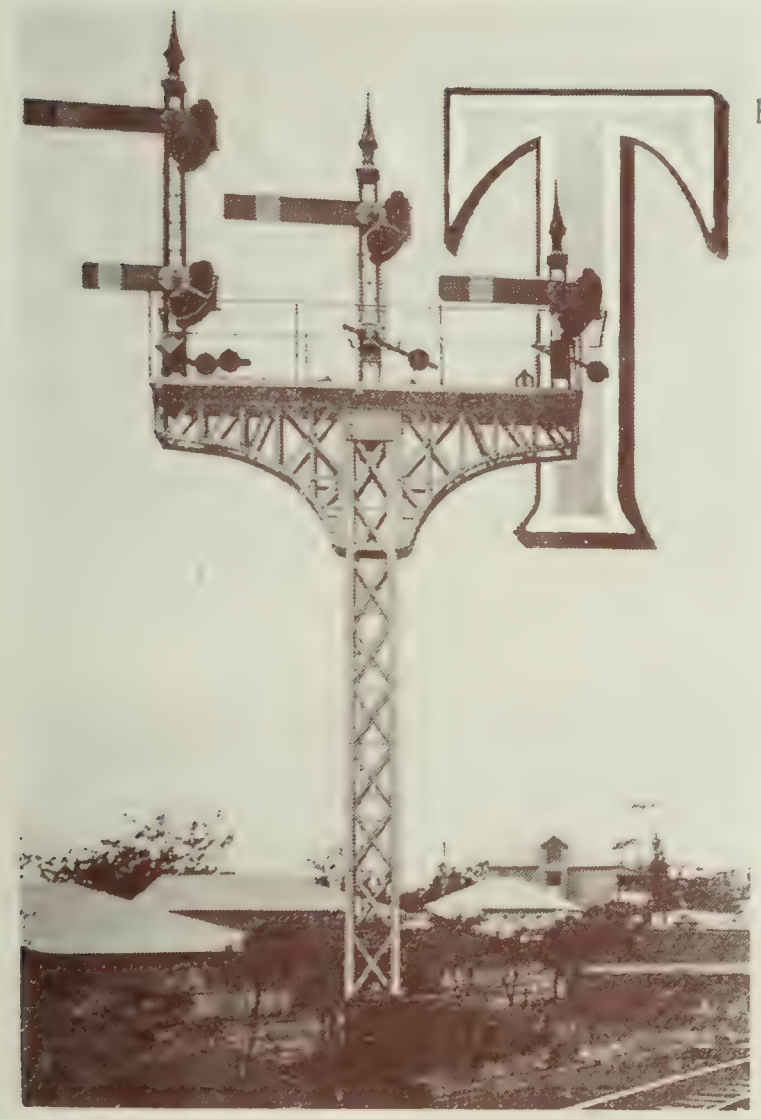


1.—Interior of Dining Saloon *2.—Interior of Family Compartment* *3.—Main Line near Drummond*
4.—Interior of Dining Saloon *5.—Botha's Hill Cutting*



RAILWAYS

CHAPTER XXV



THE first record of any railroad in South Africa was in the year 1860 when a small line was constructed at Durban, otherwise Port Natal, and it was certainly a fitting place as a birthplace of any great scheme. The first line was commenced at the wharf, more commonly known as the Point, and in length two miles, terminating at the town of Durban. It was a very modest joint-stock affair, and not till 1874 was it extended, and then only to the Umgeni River, four miles from Durban.

Two years later when the Government decided upon the construction of a scheme of colonial railways, this small concern was purchased for £40,000 and became the basis of the Natal Railway system.

The gauge of the original railway was 4 ft. 8½ in., but it was decided to adopt a 3 ft. 6 in. gauge for the Natal Government, and the gauge of the old joint-stock line was altered to harmonize with what has now become the standard gauge of the South African Railways, which at the present time have an open mileage of approximately 8,000 miles of single 3 ft. 6 in. track.

NATAL GETS THE LION'S SHARE.—From the earliest days of the Rand up to the year 1892. the Natal railways conveyed the lion's share of the Transvaal trade, which was transhipped at the terminus to the slow and cumbersome ox-wagon. But in that year the Cape Colony obtained direct rail entry into Johannesburg—the result was obvious. Practically the whole of this valuable traffic was diverted, resulting in a fall of 20 per cent. in the Natal Railway receipts.



First Railway Station in Africa

Immediate action was demanded to avert the continuance of this serious loss. To this end the Government exerted its influence to secure the extension of the line from the Natal Border to Johannesburg. The then Colonial Secretary and the General Manager of Railways were appointed by the Governor as delegates to the Government of the South African Republic.; the mission resulted in the survey of the line by the Natal Railway engineers, on behalf of the Republican Government. In 1893 the surveys were completed and presented, consent was given to the execution of the scheme, and by the end of 1895 a line from the border to Johannesburg, 176 miles in length, was opened and bearing again the weighty substance of the Rand. In 1896 all previous receipts were doubled.

FIRST SECTION—DURBAN TO PIETERMARITZBURG.—The first section of the Natal Government Railways consisted of 98½ miles, and comprised the lines from Durban to Pietermaritzburg, Verulam, and Isipingo. The Permanent Way and works were of a light character, the rails being of iron, 40 lb. to the yard, which were spiked direct to the sleepers, without the intervention of chairs. These, however, were soon replaced by steel rails of 45 lb. to the yard, and gradually, as the lines became extended and traffic increased, heavier and more enduring types were adopted, the present standard type being, for main lines, 80 lb., and for branch lines, 60 lb. steel rails with chairs. Natal is characterised by sharp and frequent undulations, and its railways contain gradients and curves of unusual severity, Forty miles have grades of 1 in 30 and there are 215 miles with grades from 1 in 30 to 1 in 60. Curves of 300 to 350 feet radius occur frequently. The main line reaches an altitude of 3,054 feet above sea level 58 miles from Durban ; falls 1,000 feet in the next 13 miles ; 12 miles further on it has risen to 3,700 feet, and 47 miles beyond (or 130 miles from Durban) an altitude above sea level of 5,152 feet is attained.

On reaching Ladysmith, 191 miles from Durban, the altitude is 3,284 feet. The summit of the Biggarsberg chain of mountains is crossed 233 miles from the Port at an altitude of 4,300 feet.

When the Transvaal Border is reached, after passing the western slope of the Drakensberg, an altitude of 5,400 feet is gained.





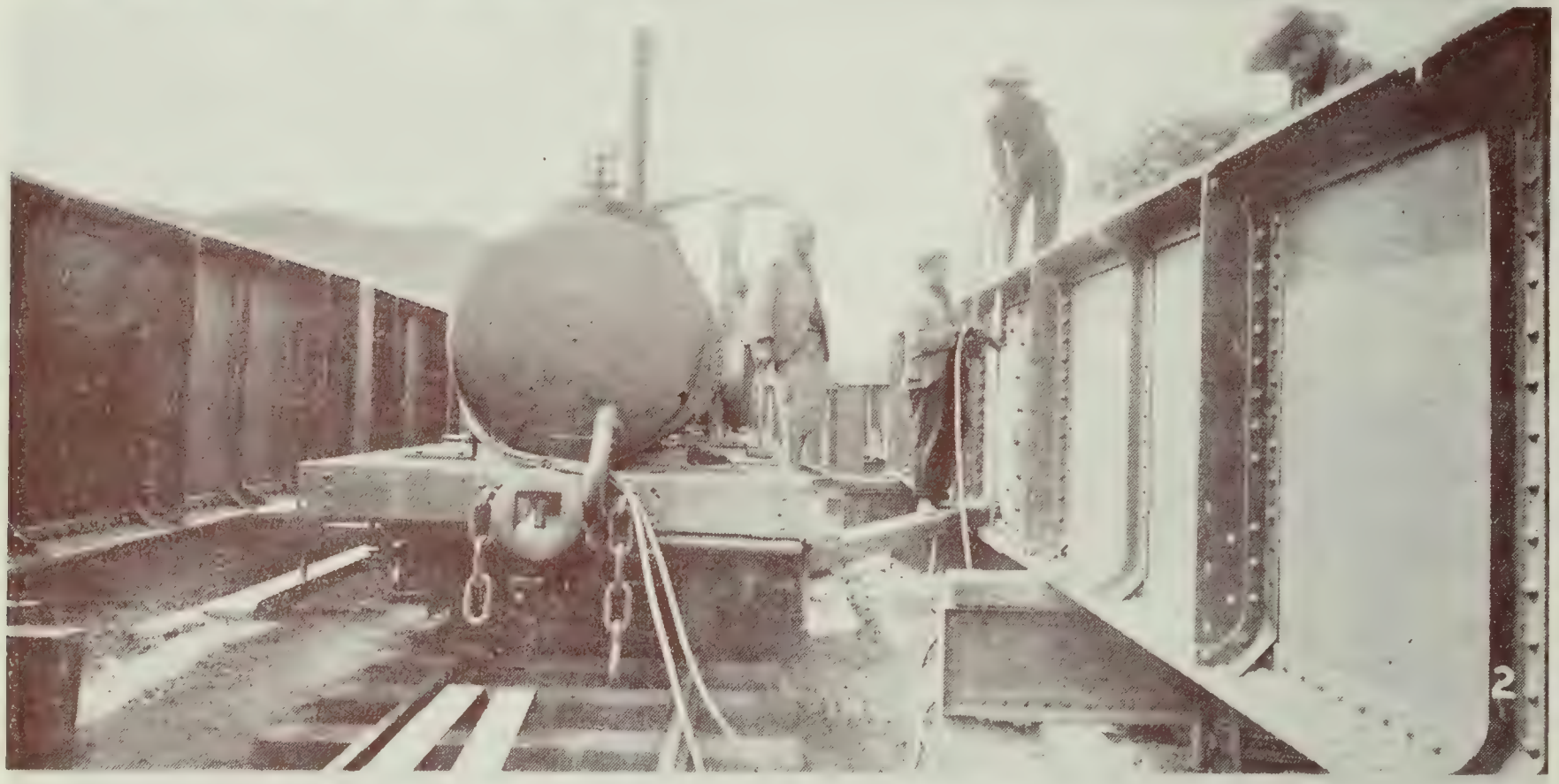


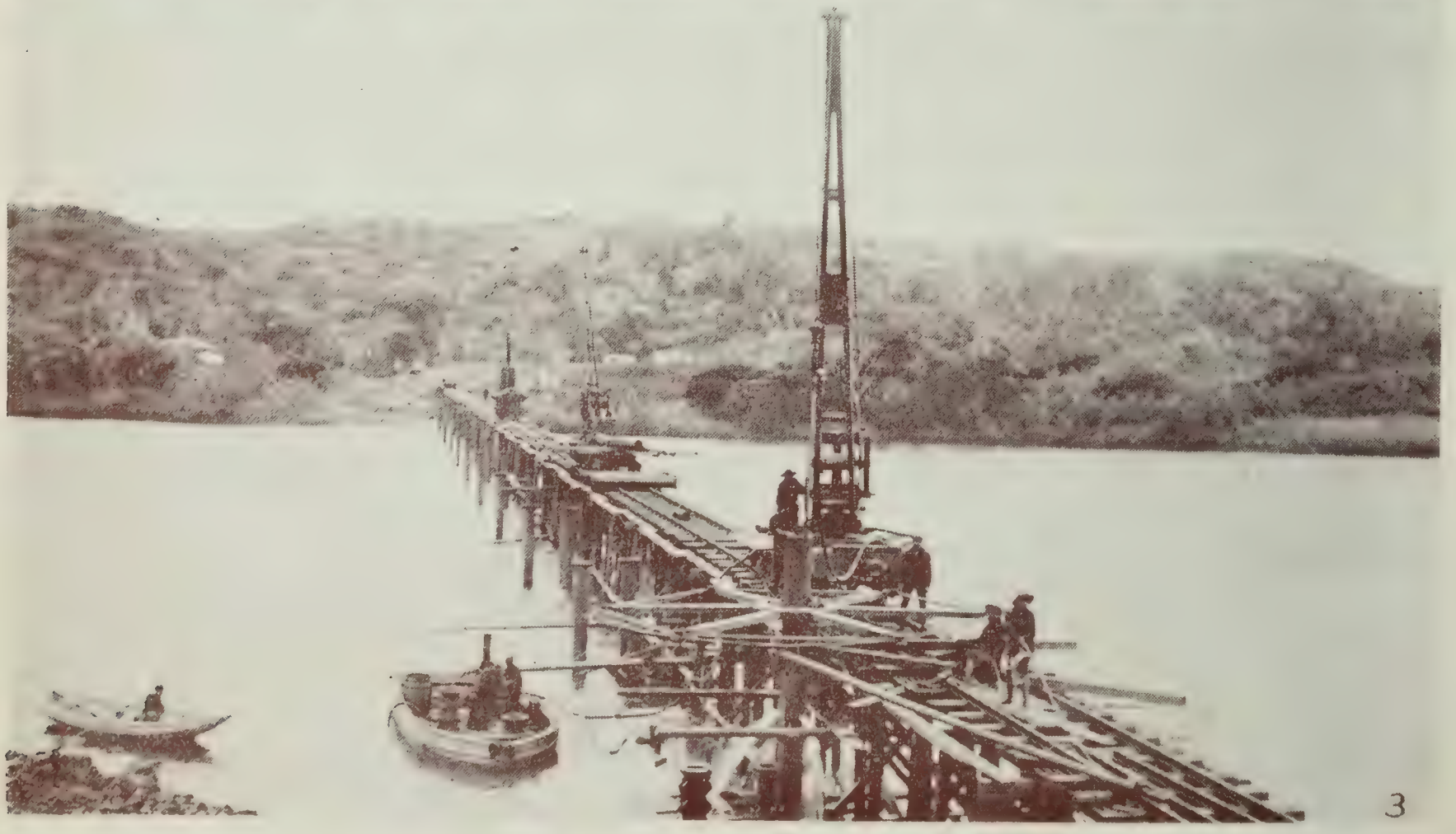


1.—Construction Train
2.—Strengthening Main Line Bridges

3.—Concrete Base Building
4.—Excavating







1.—Screw Piles in position *2.—Pneumatic Riveting* *3.—Umzimkulu River Bridge*

VERTICAL ELEVATION OF 12,000 FEET.—Between Durban and Charlestown, the extreme points of the main line, an aggregate vertical elevation of over 12,000 feet has to be overcome, and approximately only 10 per cent. of the entire length of 301 miles is level. The line connecting Natal with the Orange Free State leaves the main line at Ladysmith, and crosses the more easterly slope of the Drakensberg at an altitude of 5,520 feet above sea level, and is continued on to Harrismith and Bethlehem, and thence the line is extended to Kroonstad where it joins the main line from the Cape Province, 392 miles distant from Durban. The Natal route places Johannesburg within 485 miles of the Port.

IMPROVEMENTS EFFECTED.—Great improvements have been effected on the railways of South Africa, and have consisted of relaying of the Permanent Way, re-grading, doubling of track, eliminating of curvature, and strengthening of the old track, and to meet the new condition of things the main trunk lines have been laid with new 80 lb. rails. Many portions of the busiest lines have been re-graded, and numerous sharp curves have been altered, while in many places the old line has been discarded and given place to deviations, some of them many miles in extent, and in addition there are a number of improvements held in abeyance, awaiting the sanction of the Union Government, which when complete will greatly accelerate traffic, and save many thousands of pounds per annum in working expenses.





1.—Engine Running Shed
2.—Signal Cabin—Pietermaritzburg North

Since the original construction of the railways large sums have been—and still are being—spent in improving the gradients and curvature. The question is frequently debated as to the propriety of spending more money in original construction with a view to greater economy in working, and an alternative main line, with greatly improved gradients and curves and of shorter length, has been fully surveyed.

The demands for cheap railway communication through sparsely-occupied country present many problems for the consideration of those responsible for advising the Government on railway construction.

Extensive and important pieces of engineering work have been carried out to accommodate the present train service. On the Natal lines in the old days 100 tons a day was thought a great thing and when it came to 300 tons in one day (equal to 100 ox wagons) it was thought almost impossible. But now it is a daily occurrence to carry over the main lines over 10,000 tons.

Large sums of money have been expended in constructing storage dams, sinking boreholes, and installing up-to-date pumping appliances in connection with the watering stations for locomotives. No apprehension need now be feared of a shortage of water supply in the driest year that may be reasonably expected.

The whole of the bridges on the main lines have either been renewed or strengthened to carry the heaviest type of rolling stock; station buildings, and siding accommodation which were totally inadequate for dealing with the traffic have been replaced, and extra land taken up for dealing with the work expeditiously and economically.

Commodious engine sheds of the most approved designs, together with mechanical coaling plants have been erected at the important locomotive depôts.

The most modern system of signalling and interlocking has been installed at the principal large stations, and on most lines where fast passenger trains are operated, as for a long period, there was no regular system of signalling or interlocking installed, there being only a few semaphore signals at scattered intervals.

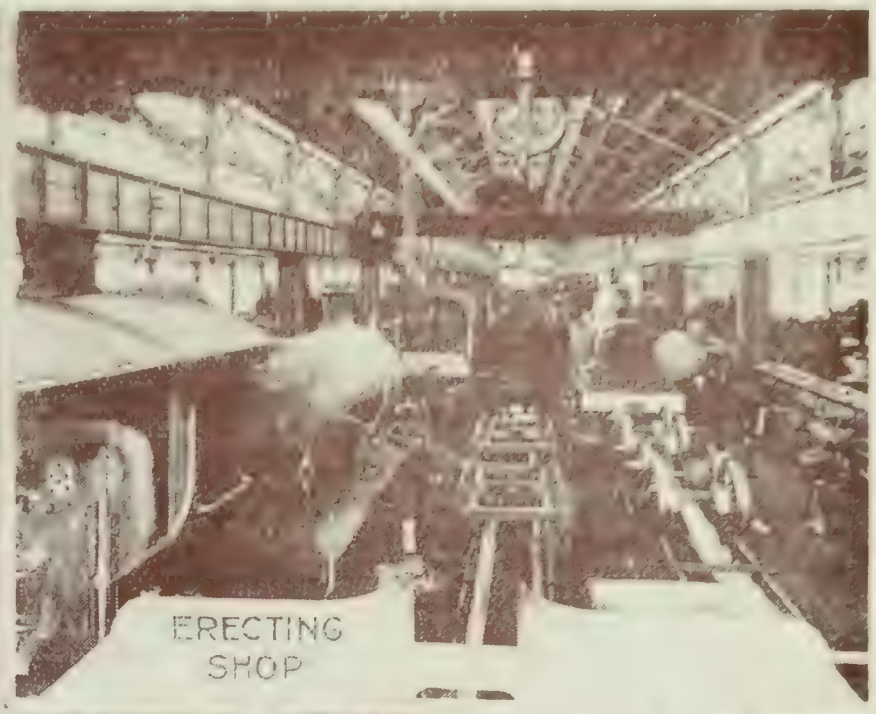
On the cessation of hostilities the enormous volume of civil and military traffic which had to be coped with, together with the abnormal influx of population and the repatriation of the returning Burghers, prisoners of war, necessitated not only an increase of rolling stock, but a considerable augmentation to the general staff and the employees on the railways. A large building programme was carried out immediately after the occupation, and quarters erected at the various important centres.

IMPROVED ROLLING STOCK, ENGINES, Etc.—Many important improvements of the lines and additions to the rolling stock have been effected during past years and as the result of these measures the ratio of paying merchandise freight to gross load has been increased from 61·07 to 71·35 by the improved carrying capacity of the trucks, but these figures do not adequately represent the effect of the experiments and efforts connected with the full loading of every vehicle and every train run. In the working of the line by the "Electric" train staff the increase of traffic has rendered necessary the provision of many additional crossing places, giving a crossing station on an average every 3½ miles. The difficulties encountered through the small percentage of level line have rendered necessary various expedients to obtain the best paying loads and the greatest measure of safety and convenience.

WORKSHOPS AND PLANT.—The workshops of the Locomotive, Carriage and Wagon Department are situated at Durban, where gradual expansion has taken place, and may at the present time be considered to rank among the most up-to-date railway works.

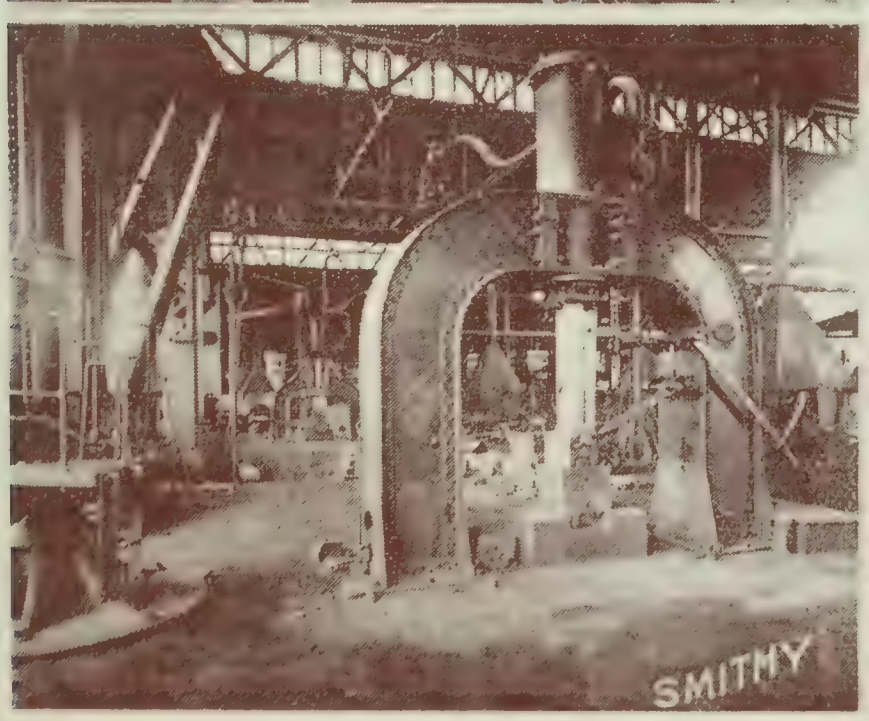
The movement of the machinery by belting and shafting driven direct by steam has been superseded by electric drive, and a Central Power Station, fitted with the most modern appliances, supplies power to all the machinery of the workshops, as well as light for the railway stations and running sheds at Durban; and power is also supplied by the railway Central Power Station for the various purposes of the port and harbour.













FINANCIAL HISTORY.—Up to 1886, the Natal lines were worked at a great loss, but after that the tide turned very rapidly and 1887 showed an increase of £2 13s. 9d. per cent. on the previous year.

The prosperity continued until 1904, when the net earnings fell to £3 12s. 1d. as compared with £7 6s. 2d. per cent. in the previous year. This, however, more than sufficed to pay interest on the capital invested, and left a surplus of £178,000.

THE WAR PERIOD.—For nearly three years the energies of the Natal railways were continually absorbed by the necessities of the Boer War which brought a heavy strain upon the resources of the railway department, but as the facts have been frequently recorded in the press, it is only necessary to refer to them in a general way. Natal bore the first brunt of the war, and 248¼ miles were at one time in possession of the enemy, which when recovered, were found to have been subjected to great destruction, no fewer than 72 bridges and culverts being destroyed, and great damage had been effected on the fixed works and the permanent way.

During the war period no fewer than 6,000 special trains were run for military purposes over the lines.

The following table, showing the growth during the last 28 years and present proportion of the line, is deserving of examination:

TABLE SHEWING LENGTH AND DATES OF OPENING OF THE NATAL RAILWAY LINES WORKED BY THE GOVERNMENT AND THOSE UNDER CONSTRUCTION, 1860—1911

	Sections.		Date of Opening.		Mile Post.	Total Mileage
MAIN LINE	POINT TO DURBAN		Year,	1860	2	...
	" PINETOWN		May.	1878	19	...
	" BOTHA'S HILL		March,	1879	33¼	..
	" CAMPERDOWN		October,	1880	49¾	..
	" PIETERMARITZBURG		December.	1880	72¾	..
	" HOWICK		May,	1884	90¼	..
	" ESTCOURT		December.	1885	148¼	.
	" LADYSMITH		June,	1886	191¾	...
	" GLENCOE		September,	1889	233½	...
	" NEWCASTLE		May,	1890	270½	...
	" CHARLESTOWN		April,	1891	306½	...
	" BORDER (TRANSVAAL)		December,	1895	309¼	309¼
					Mileage	
BRANCH LINES	NORTH COAST LINE	Durban to Tugela	December,	1898	69¼	..
		Tugela to Empangeni	January,	1903	53	...
		Empangeni to Somkele	September,	1903	45	...
	SOUTH COAST LINE	South Coast Junction to North Shepstone	July,	1901	72½	...
		North Shepstone to South Shepstone	September,	1907	1¾	...
		Kelso Junction to Umzinto	August,	1900	6¾	..
	BLUFF LINE	Clairwood to Wests	June.	1898	6½	..
	RICHMOND LINE	Thornville Junction to Richmond	December.	1897	17	...
	GREYTOWN LINE	Maritzburg to Greytown	July,	1900	64¾	...
	NATAL-CAPE LINE	Maritzburg to Riverside	February.	1909	106¾	..
	WEENEN LINE	Estcourt to Weenen	April,	1907	28¾	...
	UPPER TUGELA LINE	Ennersdale to Winterton	May,	1907	24	...
	MAIN LINE (O.R.C.)	Ladysmith (F.S. Junction) to Harrismith	July,	1892	59¼	...
		Harrismith to Bethlehem	December.	1903	65	...
		Bethlehem to Kroonstad Junction	June,	1906	88½	...
	GLENCOE-HLOBANE LINE	Glencoe Junction to Talana	September,	1889	...	..
		Glencoe Junction to Buffalo River	April,	1901	21	...
		Buffalo River to Vryheid	November,	1903	38¼	...
		Vryheid to Hlobane	April,	1909	17	...
	*STUARTSTOWN LINE	Esperanza to Donnybrook	June,	1908	97	...
	UTRECHT LINE	Newcastle to Utrecht	April,	1910	29	...
	*MID-ILLOVO LINE	Umlaas Road to Mid-Illovo	April,	1911	28½	939¼
			TOTAL MILES	...		1,248½

LINES UNDER CONSTRUCTION.— Alfred County Line—Extension from South Shepstone 24½ miles.
Howick Rail—Howick Village ... ... 2¾ "
Greytown—Krantzkop... ... ... 33 "

* Narrow Gauge Lines.

NATAL GOVERNMENT RAILWAYS

Table showing Capital, Mileage, Equipment, Carryings, Train Mileage, Revenue, Expenditure, &c., &c.

Year ...	1881	1887	1889	1891	1893	1894	1896	1898	1900
Capital invested on open lines	£1.204.416	2.700.000	3.000.000	4,528.242	6.060.122	6.078.489	6.286.566	6,950,621	7,808,216
Miles of line open (average) ...	98½	217½	225	342	399	399	402¼	476	587
Engines	19	36	52	73	76	91	102	125	140
Carriages	38	70	85	125	113	133	220	220	260
Wagons	300	402	706	1,153	1.225	1.295	1,614	1,767	2,201
Other vehicles	18	41	84	105	84	138	94	109	157
No. of passengers conveyed ...	427.969	331.277	514.464	781.309	610.698	649.136	898.250	1,224,968	1,972,672
Merchandise & minerals (tons)	171.081	157.338	267.104	380.157	304.582	336.553	628.709	914,807	1,092,050
Train miles run	413.320	428.266	1.320,160	1.527.483	1.192.491	1.196.824	2.277.100	2,762,429	3,119,400
Revenue	£173.108	257.877	535.261	572.296	416.615	465.872	1.186.214	986,417	1,042,281
Expenditure	£113.587	173.932	300.248	372,024	273.869	294.063	421.900	559,816	621,058
Net receipts per cent. of capital	£4 18 10	3 2·2	7 16 8	4 8 5½	2 7/1¼	2 16 6¼	11 0·0½	5 0·4¼	4 8 11¼
Expenses per cent. of receipts	65·61	67·44	56·90	65·00	65·73	63·12	37·14	59·79	71·73
Earnings per train mile ...	8 4·5	7/0·98	8 1·30	7 5·91	6 11·84	7 9·42	9/11·75	7/1·70	7/11·67
Expenses per train mile ...	5 5·9	4 0·31	4·6·58	4 10·45	4 7·11	4/10·96	3/8·47	4/3·24	3 9·50

Year ...	1901	1902	1903	1904	1905	1906	1907	1908	1909
Capital invested on open lines	£8.528.989	9.271.691	10.543.179	11.170.487	12.957.544	13.536.636	13.791.096	13.980.207	14.161.324
Miles of line open (average) ...	609	635	710	744½	782¾	879½	900½	976¼	987
Engines	174	228	259	309	326	383	330	340	329
Carriages	365	402	501	491	487	498	483	498	448
Wagons	2.652	3.052	3.412	3.448	3.377	3,670	3,983	3,916	3,454
Other vehicles	87	219	...	...	...	...	...	...	...
No. of passengers conveyed ...	2.422.409	2.805.392	2.834.807	2.710.971	2.668,028	2.639.348	3.035.102	2.813.536	2.644.813
Merchandise & minerals (tons)	1.500.336	1.738.666	2.052.082	1.919.959	2.276.674	2.383 152	2,577 879	2.678 348	3.004 173
Train miles run	4.348.609	4.450.557	4.851.600	4.292.028	4.483.158	4.628 968	4.859 764	4.814 866	5.031 366
Revenue	£1.650.355	2.046.116	2.561.551	1.933.934	2.034.937	1.836.916	1.837.701	1.872.802	2.024.607
Expenditure	*£1.159.026	1.434.023	1.791.108	1.531.210	1.289.459	1.236.611	1.268.143	1.240.240	1.187.068
Net receipts per cent. of capital	£5 15 2½	6 12 0½	7 6 1¾	3 12 1¼	5 15/0¾	4 8 8¼	4 2 7	3 13 8	3 18 2¼
Expenses per cent. of receipts	70·23	70·08	69·92	79·18	63·37	67·32	69 01	67 97	58 63
Earnings per train mile ...	7 7·08	9 2·34	10 6·72	9 0·11	9 0·94	7/11·24	7/6 83	7/9 79	8 2·52
Expenses per train mile ...	5 3·96	6 5·33	7 4·60	7 1·62	5 9·03	5 4·12	5/2·68	4/7 48	4 8·69

NOTE.— Includes £513.608 (distributed over five years) in respect of relaying Main Line from 1894-1901 inclusive.



Beyer Peacock Engine.

Built, 1877. Boiler pressure, 130 lbs. sq. in.
Tractive effort, 9,800 lbs. Cylinders, 14″ x 20″ stroke.
Diameter of Coupled Wheels, 3′ 3″

Heating Surface	Tubes (sq. ft.)	590.0
.. ..	Firebox ..	49.5
	Total	639.5

Grate area, 11.0 square feet.
Capacity of Tanks, 700 gallons.
Fuel space, 40 cubic feet.

ENGINES



Kitson & Stephenson Engine.

Built, 1879 and 1882. Boiler pressure, 175 lbs. sq. in.
Tractive effort, 13,852 lbs. Cylinders, 14″ x 21″ stroke.
Diameter of Coupled Wheels, 3′ 3″

Heating Surface	Tubes (square ft)	611
.. ..	Firebox ..	58
	Total	669

Grate area, 11 square feet.
Capacity of Tanks, 700 gallons.
Fuel space, 40 cubic feet.



Hendrie "B."

Built, 1904. Boiler pressure, 190 lbs. sq. in.
Tractive effort, 31,939 lbs. Cylinders, 20½″ x 24″ stroke.
Diameter of Coupled Wheels, 3′ 9½″

Heating Surface	Tubes (sq. ft.)	2094.17
" "	Firebox "	128.63
	Total	2222.80

Grate area, 34 square feet
Water capacity of Tender, 3,225 gallons.
Fuel " " 240 cubic ft.



Dubs "A."

Built 1888. Boiler pressure, 160 lbs. sq. in.
Tractive effort, 18,681 lbs. Cylinders, 17″ x 21″ stroke.
Diameter of Coupled Wheels, 3′ 3″

Heating Surface	Tubes (sq. ft.)	888.2
" "	Firebox "	90.18
	Total	978.38

Grate area, 15.7 square feet.
Capacity of Tanks, 1,376 gallons.
Fuel space, 90 cubic feet.



Hendrie "D."

Built, 1909. Boiler pressure, 200 lbs. sq. in.
Tractive effort, 35,280 lbs. Cylinders, 21″ x 24″ stroke.
Diameter of Coupled Wheels, 3′ 9½

Heating Surface	Tubes (sq. ft.)	2582
" "	Firebox "	136
	Total	2718

Grate area, 34 square feet.
Water capacity of Tender, 3,500 gallons
Fuel " " 240 cubic ft.



Reid.

Built, 1900. Boiler pressure, 175 lbs. sq. in.
Tractive effort, 28,429 lbs. Cylinders, 19″ x 27″ stroke.
Diameter of Coupled Wheels, 3′ 9″

Heating Surface	Tubes (sq. ft.)	1358.71
" "	Firebox "	134.79
	Total	1493.50

Grate area, 21.15 square feet.
Capacity of Tanks, 1,880 gallons.
Fuel space, 160 cubic feet.



American "D" Superheater.

Built, 1909. Boiler pressure, 160 lbs. sq. in.
Tractive effort, 36,864 lbs. Cylinders, 24″ x 24″ stroke.
Diameter of Coupled Wheels, 3′ 9½″
Superheater Surface, 457 sq. ft.

Heating Surface	Tubes (sq. ft.)	2268
" "	Firebox "	149
	Total	2417

Grate area, 36.25 square feet.
Water capacity of Tender, 4,000 gallons.
Fuel " " 360 cubic ft.



Hendrie "A."

Built, 1905. Boiler pressure, 180 lbs. sq. in.
Tractive effort, 22,934 lbs. Cylinders, 19″ x 24″ stroke.
Diameter of Coupled Wheels, 4′ 3″

Heating Surface	Tubes (sq. ft.)	2112
" "	Firebox "	119
	Total	2231

Grate area, 28 square feet.
Water capacity of Tender, 3,225 gallons.
Fuel " " 240 cubic ft.



Mallet.

Built, 1909. Boiler pressure, 200 lbs. sq. in.
Tractive effort, 42,310 lbs.
Cylinders, 17½″ and 28″ x 26″ stroke.
Diameter of Coupled Wheels, 3′ 9½″

Heating Surface	Tubes (sq. ft.)	2422
" "	Firebox "	125
	Total	2547

Grate area, 40 square feet.
Water capacity of Tender, 4,000 gallons.
Fuel " " 360 cubic ft.

CARRIAGES



Second Class Carriage, 4-Wheeled.



First and Second Class Compo. Carriage, 6-Wheeled



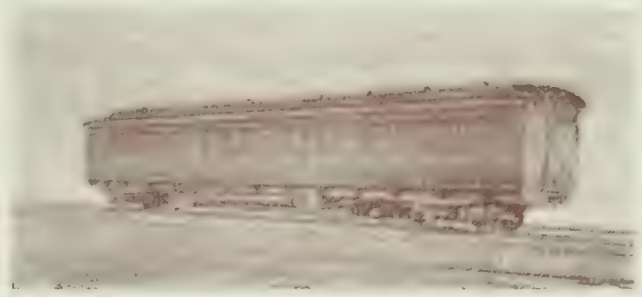
First Class Lav. Bogie Carriage, 34-feet stock.



First and Second Class Lav. Bogie Carriage, 36-feet stock.



Suburban Coach, 60-ft. Stock



Restaurant Car, Corridor Stock.



First Class Corridor Coach.

WAGONS



Six-ton High-sided Wagon, 4-Wheeled stock.



12-ton High-sided Wagon, 6-Wheeled stock.

WAGONS—*continued*



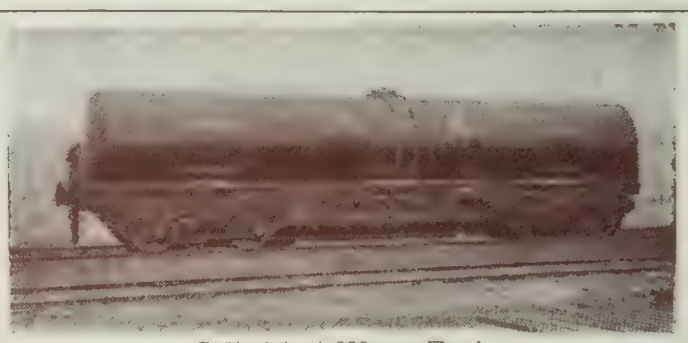
22-ton High-sided Bogie Wagon.



35-ton High-sided Wagon, with diamond frame bogie.



Well Wagon (Joint stock) loaded with boiler.



Cylindrical Water Tank.



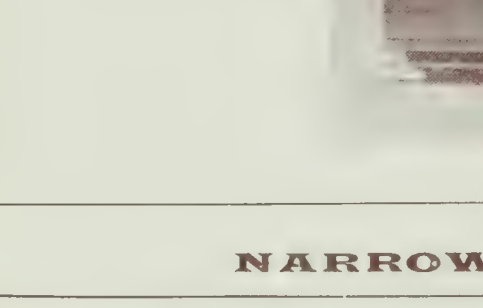
20-ton Combination Van.

NARROW GAUGE (2-ft.) STOCK

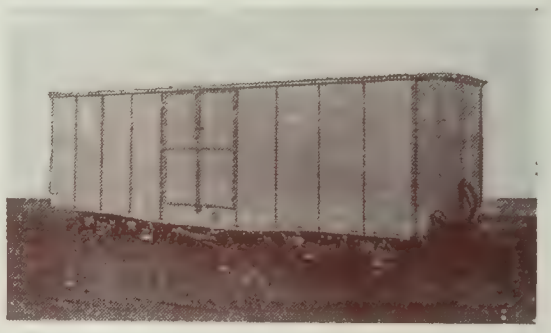


Engine 4-6-2 Type, Stuartstown Branch.

Compo. Guards Brake and Luggage Carriage.



First and Second Class Compo. Carriage.



12-ton Covered Goods Van.



12-ton Cattle Truck.

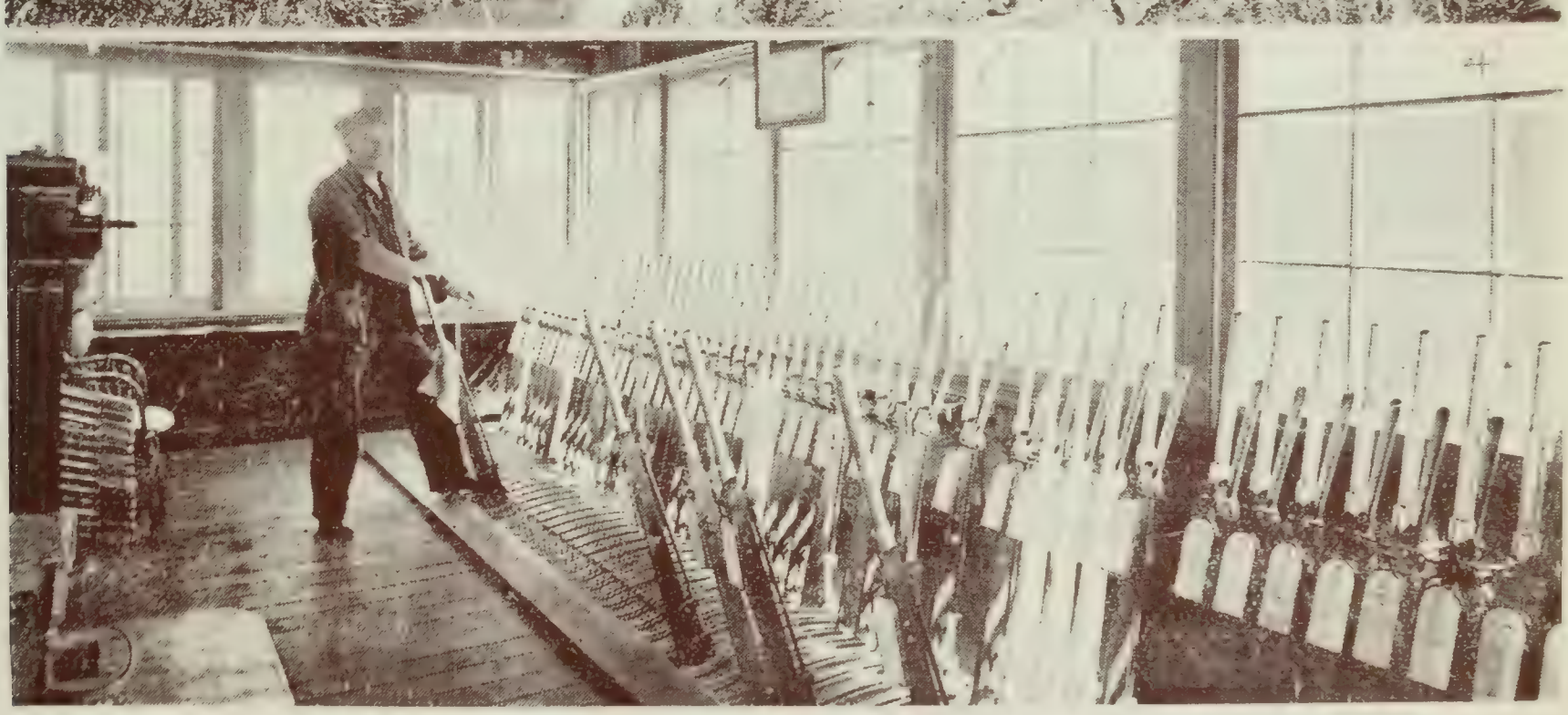


12-ton Low-sided Bogie Wagon.









1.—Railway Employees' Residences
2.—Railway Institute
3.—Branch Lines Bridge
4.—Interior of Signal Cabin







1 —Mail Train

2.—Country Post Office

3. -Interior of Travelling Post Office Van

4.—Post Cart

5.—Post Bag on pole



POSTAL AND TELEGRAPH

CHAPTER XXVI

RATES OF POSTAGE

LETTERS, NEWSPAPERS, ETC.

TO	Letters per ½ oz.	Post Cards.	Reply Post Cards.	Newspapers.	Printed Papers.	Commercial Papers.	Samples.
Natal	1d.	½d.	1d.	For each copy ½d. per 4 ozs.	½d. per 2 ozs.	½d. per 2 ozs.	½d. per 2 ozs.
Cape of Good Hope (including Bechuanaland) Transvaal (including Swaziland) Orange Free State... .. ... Bechuanaland Protectorate ... Rhodesia (Southern)	1d.	½d.	1d.	Do.	Do.	Do.	1d. for first 4 ozs., ½d. for every additional 2 ozs.
Portuguese East Africa ... ... Rhodesia (North-Eastern and North-Western)	1d.	1d.	2d.	Do.	Do.	Do.	Do.
United Kingdom, and British Colonies and possessions ...	1d.	1d.	2d.	½d. per 2 ozs.	Do.	Same as for Printed Papers, with a minimum charge of 2½d.	Do.
Other Countries	2½d.	1d.	2d.	Do.	Do.	Do.	Do.

LATE FEES.—At Pietermaritzburg and Durban letters bearing an extra penny stamp posted for despatch by any mail up to a quarter-of-an-hour after the closing of the ordinary box for such mail, will be duly sent forward.

PARCELS

No parcel may exceed 3½ feet in length, breadth, or depth, or 6 feet in length and girth combined. The limit of weight is 11 lbs.

PARCELS

Natal	2d. for every 4 ozs, or fraction thereof, up to 11 lbs.
Cape of Good Hope (including Bechuanaland) Transvaal (including Swaziland) ... ... Orange Free State ... ... Portuguese East Africa	4d. for 8 ozs., and 2d. for every additional 4 ozs. or fraction thereof, up to 11 lbs.
Rhodesia (Southern, North-Eastern, and North-Western)	1s. 6d. per lb., or fraction thereof, up to 11 lbs.
Bechuanaland Protectorate	1s. per lb., or fraction thereof, up to 11 lbs.
United Kingdom	9d. per lb., or fraction thereof, up to 11 lbs.

Country of Destination.	Rate of Postage for a Parcel Weighing—										
	1 lb	2 lb	3 lb	4 lb	5 lb	6 lb	7 lb	8 lb	9 lb	10 lb	11 lb
	s d	s d	s d	s d	s d	s d	s d	s d	s d	s d	s d
United Kingdom, Mauritius, India and Ceylon ...	0 9	1 6	2 3	3 0	3 9	4 6	5 3	6 0	6 9	7 6	8 3
Ascension and St. Helena...	0 8	1 4	2 0	2 8	3 4	4 0	4 8	5 4	6 0	6 8	7 4
Australia, New Zealand, and Nyasaland Protectorate	1 0	2 0	3 0	4 0	5 0	6 0	7 0	8 0	9 0	10 0	11 0
All other British Possessions and British Postal Agencies	1 6	2 0	2 6	4 0	4 6	5 0	5 6	7 0	7 6	8 0	8 6
German South-West Africa.	1 0	1 6	2 0	2 6	3 0	3 6	4 0	4 6	5 0	5 6	6 0
Katanga (Belgian Congo) ...	3 0	3 6	4 0	6 3	6 9	7 3	7 9	10 6	11 0	11 6	12 0
Madeira	2 6	2 9	3 0	3 3	3 6	3 9	4 0	4 3	4 6	4 9	5 0
All other places in Europe.	2 0	2 6	3 0	4 6	5 0	5 6	6 0	7 0	7 6	8 0	8 6
Africa	3 0	3 6	4 0	5 0	5 6	6 0	6 6	7 6	8 0	8 6	9 0
Asia and America	3 6	4 0	4 6	5 6	6 0	6 6	7 0	8 0	8 6	9 0	9 6

LIMITS OF SIZE AND WEIGHT

LETTERS.—No letter may exceed 2 feet in length or 1 foot in width or depth.

NEWSPAPERS, SAMPLES, ETC.

DESTINATION OF PACKETS.	Newspapers, Printed or Commercial Papers.						Patterns or Sample Packets.					
	When not in Roll.			When in Roll.		Weight.	When not in Roll.			When in Roll.		Weight.
	Length.	Breadth.	Depth.	Length.	Diameter.		Length.	Breadth.	Depth.	Length.	Diameter.	
	in.	in.	in.	in.	in.		in.	in.	in.	in.	in.	
Cape of Good Hope and Bechuanaland ... Orange Free State ... ... Transvaal and Swaziland ... ... Portuguese East Africa ... ... Southern, North-Eastern, and North-Western Rhodesia	24	12	12	24	12	7 lbs.	24	12	12	24	12	7 lbs.
United Kingdom, India, and British Colonies abroad	24	12	12	30	4	5 lbs.	24	12	12	24	12	5 lbs.
All other countries	18	12	12	30	4	4 lbs.	12	8	4	12	0	12 ozs.

† To the Australian Colonies, the limit of weight for a sample packet is 1 lb.

NATAL PRODUCE POST.—Articles produced, or if manufactured produced and manufactured wholly within Natal, are accepted at all post offices for conveyance by post at special rates.

The sender of a parcel containing Natal produce will be required to sign a declaration that the contents are the *bona-fide* produce, or if manufactured, the produce and manufacture of Natal.

No parcel will be accepted for transmission at the reduced rate if addressed to a place outside Natal.

In all other respects the regulations governing the acceptance of ordinary parcels will be observed.

The following articles are accepted for transmission at the reduced rates, provided they comply with the requirements noted in the first paragraph :— .

Butter	Fish	Sugar	Seeds
Eggs	Meat	Tobacco	Plants
Poultry	Jam	Cigarettes	Vegetables
Bread	Honey	Confectionery	Specimens of quartz
Biscuits	Tea	Fruit	or minerals

RATES OF POSTAGE :—

Up to 1¼ lb.	3d.
Over 1¼ lb. but not more than 3 lb.	6d.
" 3 lb. " " 6 lb.	8d.
" 6 lb. " " 9 lb.	10d.
" 9 lb. " " 11 lb.	1s.

REGISTRATION :—For each article, Inland or Foreign ... ... 4d.
Acknowledgment of delivery of Registered Articles, 2½d.

NOTE.—Foreign Parcels cannot be registered.

PREPAYMENT OF POSTAGE IN MONEY.—At Pietermaritzburg and Durban the postage on articles addressed to places within the Union of South Africa may be prepaid in money. For conditions see *Post Office Guide.*

POSTE RESTANTE.—Correspondence of any kind to be called for is, as a rule, taken in at all post offices. The words "to be called for," or "Poste Restante," should appear in the address.

PRIVATE POSTING BOXES.—Arrangements may be made for the collection of letters, etc., from private letter boxes on payment of the following fees :—

For each collection daily, except Sunday, £1 10s. 0d. a year.

PRIVATE LETTER BAGS.—The rental payable for a bag to be conveyed by the Post Office is £1 per annum. Rent must be paid up to the 31st December in each year, and any portion of a quarter will be reckoned as a full quarter in calculating payment to be made.

If renter should require bag to be made up at a post office on each side of his residence a double rental is chargeable.

PRIVATE LETTER BOXES.—The yearly fee varies from £1 5s. 0d. to £3 5s. 0d. for the first year and from £1 to £3 for subsequent years, and is payable in advance. The year is taken as from the 1st January to the 31st December.

TRAIN LETTERS.—Letters addressed to places within the Union of South Africa, and the Province of Moçambique, bearing a penny stamp in addition to the ordinary postage, are accepted at railway stations for conveyance by the next available "passenger" or "mixed" train to the place of their destination, or to the railway station nearest thereto. All such letters must be fully prepaid as regards both the postage and other charges.

SOUTH AFRICAN PARCELS.—Parcels may be sent to the Cape Province (including Bechuanaland), the Orange Free State, the Transvaal, the Bechuanaland Protectorate, Rhodesia and Portuguese East Africa, under the same regulations as regards weight and size as apply to the transmission of Inland Parcels, except that the sender of a parcel addressed to North-Eastern or North-Western Rhodesia or Portuguese East Africa must fill up and sign one of the Foreign Declaration labels.

The full value as merchandise of articles enclosed in parcels addressed to the Cape Province must be stated on the Customs Declaration Form attached to parcels by the senders. Parcels which do not comply with this rule are liable to forfeiture.

The rates are as follow (except to the Bechuanaland Protectorate and Rhodesia):—

Not exceeding eight ounces	4d.
For every additional four ounces, or fraction thereof ...	2d.
To Rhodesia—For each 1 lb., or fraction thereof ...	1s. 6d.
To the Bechuanaland Protectorate—	
For each 1 lb. or fraction thereof	1s. 0d.

N.B.—Firearms cannot be exported from the Province without the permission of the Controller of Arms.

SOUTH AFRICAN CUSTOMS UNION.—In addition to Natal the following territories are comprised in the South African Customs Union:—Cape of Good Hope (including Basutoland and Bechuanaland), Orange Free State, Transvaal (including Swaziland), Southern Rhodesia, North-Western Rhodesia (Barotseland), and the Bechuanaland Protectorate. Parcels addressed to Rhodesia and the Bechuanaland Protectorate must be accompanied by a Customs Union Form "E."

SPECIAL REGULATIONS RESPECTING PLANTS, ETC.—Parcels of plants, etc., sent from Natal to other Provinces of the Union must be accompanied by a certificate on either of the Agricultural Department's forms "A" or "B," the former referring to parcels posted by nurserymen, and the latter to parcels posted by other individuals. These forms can be obtained from the Government Entomologist.

PREPAYMENT OF CUSTOMS AND OTHER CHARGES.—The sender of a parcel addressed to any place within the United Kingdom may prepay the Customs and other charges, ordinarily payable by the addressee. Parcels intended to be sent under this arrangement must be handed in at a Head Post Office. The sender must pay a fee of 6d., sign an undertaking to pay on demand the amount due, and make a deposit on account of the charges.

MONEY ORDERS AND POSTAL ORDERS.—In Money Orders and Postal Orders the Postmaster-General gives the means of transmitting small sums by post.

An Inland Money Order may be obtained for any sum up to £40. For transmission abroad the limit varies from £10 to £40.

Orders for payment of sums up to £40 may be transmitted by telegraph to places within South Africa.

RATES OF COMMISSION

Payable in the Union of South Africa ...	6d.	per unit of value of £4, or part thereof.
Payable in Rhodesia and Moçambique ...	9d.	" " " "
Payable elsewhere	1s.	" " " "

Advice of the payment of a Money Order can be obtained by the remitter on payment of a fee of 2½d.

Postal Orders can be obtained for 6d., and for any multiple of 6d., up to £1, and also for £1 1s. 0d. Intermediate amounts may be made up by affixing postage stamps not exceeding three in number, or 5d. in total value.

The purchaser of a Postal Order must, before parting with it, fill in the name of the person to whom the amount is paid, and also the office of payment. The counterfoil of every order should be torn off and retained. Its production is necessary in connection with any enquiry if the order should be lost.

POST OFFICE SAVINGS BANK.—The Post Office acts as a Bank for Savings throughout Natal.

At all Money Order offices in the Province savings may be paid in. The money will be held in safety by the Government, will earn interest at the rate of three pounds for every hundred pounds invested, and, when required, may be drawn out again through the local Money Order office wherever the owner may be.

Any person may become a depositor in the Post Office Savings Bank.

A depositor in the Savings Bank may transfer his account to the Post Office Savings Bank of another country.

POSTAL DRAFTS.—Postal Drafts, for amounts not exceeding £10, may be issued at and may be drawn upon all Money Order offices.

When a single demand is to be made for payment a charge of 6d. is levied.

When a second demand is to be made the charge is increased to 9d.

POSTAL DRAFTS BETWEEN THE CAPE PROVINCE, ORANGE FREE STATE, AND NATAL.—Postal drafts may be drawn in Natal upon the Cape Province and the Orange Free State, on precisely the same conditions as such drafts are drawn at one office upon another in Natal, except that it is necessary for the drawer to sign the draft itself. The treatment in Natal of drafts drawn in the Cape Province and the Orange Free State on Natal will, in the same way, correspond precisely with that of drafts drawn in Natal upon Natal.

TELEGRAPHS

CHARGES FOR TRANSMISSION

Natal	1d. a word with a minimum charge of 1s.
Cape Province	
Orange Free State	
Transvaal	
Districts of Lourenço Marques and Inhambane, P.E.A.	
Rhodesia (Southern) and Bechuanaland Protectorate	2d. a word, minimum 2s.
Rhodesia (North Western) and Beira Railway Company's offices	3d. a word, minimum 3s.
North - Eastern Rhodesia, Nyasaland Protectorate and Belgian Congo ..	5d. a word, minimum 5s.
†District of Quelimane, P.E.A.	6½d a word, minimum 6s. 6d.
German East Africa and Shire Highland Railway Offices	7d. a word, minimum 7s.
German South-West Africa	3d. per word, plain language or code, without any minimum.
Other Countries	(See Tariff in *Post Office Guide*.)

For cypher or code telegrams the rates are 50 per cent. higher, except in the case of German South-West Africa.

A receipt for the amount paid on any telegram may be obtained on payment of 2d.

An Inland telegram will be repeated on the deposit of a sum equal to not less than half the original cost. Should an error be disclosed the sum deposited will be refunded. Special regulations govern repetitions in International telegrams.

The cost of a reply may be prepaid.

---

† The District of Moçambique and Nyasa Company's Office in P.E.A. circulate *via* cable.

MIXED POSTAL AND TELEGRAPH SERVICE.—Messages can be forwarded to the United Kingdom by telegraph to Capetown, by post between Capetown and Southampton, and by telegraph from Southampton to their destination. Messages can be forwarded similarly from the United Kingdom to Natal.

The charge is calculated at the rate of 1½d. per word, minimum 1s. 6d., plus 1d. for postage.

When tendered after 2 p.m. on Wednesdays the following additional fees will be charged, viz. :—Up to 2.15 p.m., 1d. ; up to 2.30 p.m., 2d. ; up to 3 p.m., 4d.

TELEPHONES

Telephone Exchanges in Natal

Pietermaritzburg	Dundee	Hilton Road	Newcastle
Durban (Municipal)	Greytown	Ladysmith	Zwaartkop

Public Call Offices

Acton Homes	Glenisla	Loteni	Richmond
Albert Falls	Gobeni	Lower Umkomaas	Reit Vlei
Amanzimtoti	Gourton	Louwsburg	Seven Oaks
Amatikulu	Greytown	Malvern (DN)	Schroeders
Bellair (DN)	Harding	Mariannhill	Shafton Grange
Bergville	Hatting Spruit	Mooi River	Stanger
Bothas Pass	Hermansburg	Ndwedwe	Sweetwaters
Bulwer	Hill Crest	Newcastle	Thornville Junction
Camperdown	Hilton Road (PMB)	New Germany	Tongaat
Cato Ridge	Howick	New Hanover	Utrecht
Charlestown	Illovo River	Nondweni	Umzinto
Dargle	Imbezane	Noodsberg	Vants Drift
Dalton	Impendhle	Noodsberg Road	Verulam
Dannhauser	Ingagane	Normandien	Vryheid
Dewdrop	Inzinga	Normanhurst	Wartburg
Durban	Ingogo	Nottingham	Waschbank
Dundee	Ingogo Rail	Nottingham Road	Weenen
Elandslaagte	Isipingo	Nqutu	Wessels Nek
Ennersdale	Ixopo	Ottos Bluff	Winterton
Eshowe	Krantzkloof	Paulpietersburg	Woodside
Estcourt	Krantzkop	Pietermaritzburg	York
Fawn Leas	Ladysmith	Pinetown	Zwaartkop (PMB)
Glencoe Junction	Loskop	Port Shepstone	

Harrismith in the Orange Free State and the following Call Offices in the Transvaal are also connected to the Natal system, and conversations can be held at the regulation charges :—

Alberton	Endicott	Krugersdorp	Reitfontein Mines
Amsterdam	Ermelo	Lake Chrissie	Reitfontein West
Angelo	Eureka	Langlaagte	Roodepoort
Balfour	Florida	Leslie	Rustenburg
Barberton	Geldenhuis	Luipaardsvlei	Silverton
Belfast	Germiston	Maraisburg	Springs
Benoni	Greylingstad	Meyertown	Standerton
Bethal	Hamburg	Millvale	Sterkfontein
Boksburg	Hatfield	Modderfontein	Trichards
Brakpan	Hatherley	Morgenzon	Vaalbank
Breyton	Heidelberg	New Clare	Van Ryn
Brook, The	Heights	New Denmark	Vanwyksrust
Brugspruit	Henley-on-Klip	Nigel	Vereeniging
Cleveland	Irene	Olifantsfontein	Volksrust
Darkton	Johannesburg	Piet Retief	Wakkerstroom
Davel	Kaalfontein	Piggs Peak	Warmbaths
Denver	Kaffirspruit	Premier Mine	Willowdene
Devon	Kinros	Pretoria	Witbank
East Rand	Klip River Station	Primrose	Zuurfontein
Eikenhof	Knights	Randfontein	
Elsburg	Kroondal	Remhoogte	

28 29 30 31 32

26 27 28

TRANSVAAL

ORANGE FREE STATE

SWAZILAND

ZULULAND

PRETORIA
Lyttelton Jn
Vd. Merwe
Bronkhorstspruit
Irene
Olifantsfontein
Kaalfontein
Krugersdorp
Boodepoort
JOHANNESBURG
Florida
Germiston
Elsburg
Roodekop
Kliprivier
Reitvlei
Meyerton
HEIDELBERG
Vereeniging
Viljoens Drift
Kraal
Balfour
Greylingstad
Holmdene
VILLIERSDORP
Val
STANDERTON
Kromdraai
Platrand
Paardekop
Zandspruit
Wakkerstroom
VOLKSRUST
Charlestown
VREDE
Drie Fontein
FRANKFORT
CORNELIA
HEILBRON
Klip River
Wilge River
Sprut Zandspruit Drift
Wilge R
Olifants Riv.
to Pietersburg
Rustenburg
MIDDLEBURG
Wilge River
Balmoral
Brugspruit
Witbank Jn
Olifantsrivier
Wonderfontein
BELFAST
MACHADODORP
Waterval Onder
Waterval Boven
Elands Spruit
Nooitgedacht
Godwaan R.
Alkmaar
Crocodile River
Elandshoek
Poort City
North Kaap R.
South Kaap R.
Kaap River
Kaap
Maleiane
Oorsprong
Hectorspruit
Inaomati
Komati Poort
Resano Garcia
Lomahe R.
Komahe River
AVOCA
BARBERTON
Moene
Moamba
Station
Matolla
Inkomati R.
LOURENÇO MARQUES
BAY
DELAGOA
Hood Pt.
Inhaca Peninsula
Umbeluzi R.
Tembe R.
Umbeluzi R.
DARKTON
STEYNSDORP
CAROLINA
BREYTEN
BETHEL
ERMELO
AMSTERDAM
Umbeluzani R.
Gr. Usutu R.
Bremersdorp
Umhof
Compies R.
Usutu R.
Usutu or Maputa R.
PIET RETIEF
Compies R.
Intombe R.
Pongola R.
Pongola R.
Paulpietersburg
PIDDORP
Chakas R.
Rides R.
Hlobane
WYHEID
Blood Riv.
Ingagane
Alcock Sp.
Dannhauser
Buffalo River
Impati Mt.
Hatting Sp.
Talana
DUNDEE
Glencoe
Biggarsberg Range
Waschbank
Wallsend
Van Reenen Sta.
Colworth
Jononos Kop
Bester's
Wessels Nek
Elandslaagte
Rorkes Drift
ISANDHLWANA
NQUTU
NEWCASTLE
UTRECHT
Ingogo
Ingogo Heights
Signal Hill
Krans Kop
Boschbult
Pogwana
Inkwelo
Amajuba
Botha's Pass
Buffalo River
Prospect
Boschrella
Sunday River Pass
Van Reenen Pass
Klein Caledon River
Muchachanins or Great Caledon R.
WODEHOUSE KOP
Brindisi
HARRISMITH
Albertina
Elands River
Wilge R.
Klip River
Sunday's River
Mooi River
Tugela R.
Black Umfolozi R.
Umfolozi R.
Umvoti R.
Umvoti R.
Umvoti River
Umvoloti R.
White Umfolozi R.
Lower Umfolozi R.
Umfolozi R.
Mkuze R.
Lake St. Lucia
Cape Vidal
St. Lucia Bay
St. Mary's Hill
Sordwana Bay
Lumbangazi
Hully Point
Sibaye Lake
Kosi Lake
Kosi B.
Pongola R.
Spioenkop Nature Reserve
Schuit R.
Lindley
Valsch River
Bethlehem
Springfield
Zand River
Meloen River
Caledon River
Elands River
Wilge R.
Klip River
Sunday River Pass
Botha's Pass
Drakensberg
Lebombo
Lingwavuma
Ubombo
Ndwandwe
Hlabisa
Mahlabatini
Maputa
Zululand
INDIARUBBER PLANTS
RICE
CEREALS
CATTLE
COAL
IRON
PASTORAL
St. Lucia Coalfields
Somkele
Hlabisa
Imdulumba
Umfolozi

MAP OF NATAL

Shewing

RAILWAY LINES, STATIONS & CONNECTIONS,
COUNTIES, PRODUCTIONS, SETTLEMENTS, &C.

REFERENCE

Existing lines
Lines under construction
Lines authorised
Projected lines

Statute Miles.

Engineer-in-Chief's Office, 1911



GENERAL INFORMATION

CHAPTER XXVII

THE Province of Natal—which includes Zululand and Amatongaland and that portion of the late South African Republic south of the Pongola River—is situated on the south-east coast of Africa, between 27½° and 31° S. Lat., and 29° and 33° E. Long. Its area is 44,000 square miles. Its boundaries are: west and north-west, the Drakensberg; on the north the Pongola River divides it from the Transvaal and Swaziland; and on the east it is bounded by the sea. The southern frontier runs along the Umtamvuna River to the Ingeli Mountains, and thence up a somewhat intricate course to the Upper Umzimkulu, thereby separating the Province from Pondoland on the south, and Griqualand East on the south-west.

Including Zululand, Natal has a seaboard of about 340 miles. Its greatest length is 330 miles, and breadth 150 miles. It is 6,800 miles from London and about a third of the size of the British Isles.

MOUNTAIN SYSTEM.—The mountain system of Natal is one of the most interesting features in the Province likely to come within the scope of a geographical student.

The Drakensberg, or Kahlamba, ranks first, both by reason of its size and grandeur, and the fact that it forms the most important and striking feature of the inland frontier. The most prominent points in the range are "Champagne Castle," or Cathkin Peak, 12,000 feet above sea level; "Giant's Castle," 11,000 feet; and Mont aux Sources, also 11,000 feet. Tintwa comes next, with 7,500, while Amajuba, of tragic memory, ranks last, with an altitude of 7,000 feet.

The second range in order is the Little Drakensberg, which springs from "Champagne Castle," and, for about 13 miles, sweeps through a realm of mountain and flood, as grandly beautiful as the heart of man can desire.

The third range, named Hlatikulu, diverges from "Giant's Castle," and forms the watershed between Bushman's and the Mooi Rivers.

GROUP OF NATAL'S PIONEERS

UP TO 1850



1	Hy Halgan	1826
2	Richard King	
3	Jos Acton Groat	Dec 1835
4	Joseph Kirkman	1836
5	Rev D Lindley	July, 1838
6	Hon Th Shepstone	1838
7	Percy Ferrara	June, 1839
8	Chas Beaton	1840
9	John Vanderplank	"
10	Jno McKenzie	"
11	Samuel Beningfield	1842
12	F S Beningfield	"
13	James Stockhill	July, 1842
14	Chas Macdonald	Nov. 1842
15	Wm Pyze	Jan. 1843
16	Jno Forrest	"
17	Jas Macknight	Nov 1843
18	Jonn Anderson	"
19	Thos Green	"
20	J N Wheeler	"
21	Arthur Walker	"
22	Armstrong	"
23	F S Berning	"
24	Ralph Carenno	1844
25	D D Buchanan	"
26	Alex Brander	"
27	J F McOnl	Mar 1845
28	C C Gruter	May, 1845
29	A Muirhead	Aug. 1845
30	H G Simpson	"
31	C Byrne	"
32	Aaron Osborne	Jan 1846
33	Rev Lewis Grout	June, 1846
34	P J Davidson	Oct 1846
35	G Drew	1847
36	John Ward	June, 1847
37	Rev D Reid	Jan 1848
38	John Dyer	July 1848
39	J E Matthews	"
40	Geo Battersby	Dec 1848
41	Jas Giles	"
42	Rev W Ireland	Feb 1849
43	Arthur Cheesman	Mar 1849
44	Rev W H C Lloyd	June, 1849
45	Rev A Abraham	July, 1849
46	Rev H A Wrenford	"
47	J E West	Sept 1849
48	J A Shaw	"
49	Joseph Mason	Oct 1849
50	Geo Rowe	"
51	W E Rowe	"
52	S Pearce	"
53	F Pearce	"
54	Thos Haywood	"
55	H Wareing	"
56	S H Marshall	"
57	Wm Gregg	Nov 1849
58	Dr W G Taylor	"
59	Robt Humphreys	"
60	A Rees	"
61	Jno Pearce	"
62	Jno Pearce	"
63	Chas Saunders	Dec 1849
64	Geo Rowe	"
65	Jos Morrow	"
66	A H Searey	"
67	P Searey	"
68	Jas Rowe	Jan 1850
69	Hy J. Knox	Mar. 1850
70	Jno. Lester	"
71	E. Tatham	"
72	J D. Nicholson	"
73	Geo Spearman	"
74	J Sanderson	"
75	J Taylor	"
76	D Tarboton	"
77	Wm. Wright	"
78	Jno. Whipp	"
79	W H. Autt	May 1850
80	Robt Brown	"
81	J Bazley	"
82	Geo Pay	"
83	Henry Cowey	"
84	Chas. Dacomb	"
85	Jno. Cubitt	"
86	J D. Holmday	"
87	Wm. Hodgson	"
88	Joseph Jones	"
89	Edward London	"
90	Chas. Powell	"
91	R W Tyzack	"
92	Josiah Tuson	"
93	W. Arbuckle	June, 1850
94	Wm. Campbell	"
95	W McKenzie	"
96	John Anderson	July, 1850
97	Wm Cowey	"
98	John J. Chapman	"
99	Wm Cooper	"
100	Thos Davenport	"
101	J D. Witherspoon	"
102	J P. Fismenge	"
103	J Hathorn	"
104	Geo. Russell	"
105	W. Holding	"
106	J Stanton	"
107	W H. Thurston	"
108	C J Challoner	Sept 1850
109	J B Grant	"
110	W Grant	"
111	Jno Garin	"
112	Fras Harvey	"
113	Jno. H Harvey	"
114	Thos M Harvey	"
115	Josiah Harvey	"
116	W. F Ellis	"
117	J T. Polkinghorne	"
118	J D. Shuter	"
119	John Wade	"
120	Thos Battery	Oct 1850
121	Thos. Cass	"
122	Wm. Cass	"
123	John Hunt	"
124	Henry Blaby	"
125	Jno. Brown	Nov. 1850
126	Richard Bavans	"
127	Joseph Bavans	"
128	J. F. Churchill	"
129	J D Jones	"
130	A W Evans	"
131	Thos. Reynolds	"
132	Lewis Reynolds	"
133	John Robinson	"
134	W H Abbott	"
135	J. Towning	"
136	Jas. J Tyzer	"
137	Thos. Chapman	"
138	G. F Eastwood	"
139	A K. Murray	"
140	J Maclaren	"
141	W J. McKen	"
142	G. Pierce	"
143	F Warwick	"
144	A McArthur	"
145	G W Symonds	"
146	Wm. Lester	Jan 1851
147	F Bell	Feb 1851
148	H Chandler	Mar. 1851
149	W Tanner	May, 1851
150	A C Hawkins	"
151	Robt Ayers	Sept 1851
152	Wm. Scarrow	Dec 1851
153	A B Ironside	"
154	George Rose	"

The Heads within the oval are those of Residents prior to the Proclamation of Peace with the Emigrant Farmers, July, 1842

The fourth range is also based on "Giant's Castle." It divides into two at an elevation of 7,039 feet above the sea, one chain trending to the north-east, and the other to the south-east. The first-named chain again divides near Mount Arrodhar, 5,691 feet above the sea and Mount West, 5,800 feet, the northerly spur running through Umvoti County to Fort Buckingham, and the southerly, forming the Karkloof Range with Mount Gilboa, 5,794 feet. The other, or south-easterly range, forms the watershed between the Upper Umgani on the north, and the Upper Umkomaas and Umsindusi on the south.

The Great and Little Noodsberg, 3,000 and 3,500 feet above sea level respectively, lie south of the Umvoti River, in Umvoti County, forming the longest stretch of silurian sandstone in South Africa. They merge to the southward in the Inanda District, and attain their greatest height at Mount Sargeaunt.

The Ingeli Mountains are an unattached chain of heights, forming the western boundary of Alfred County. They attain an altitude of about 7,000 feet.

There are many mountains not directly attached to ranges, which are well worthy of note. Some of these are of great height and beauty, as for instance, Episweni, in the Tugela Valley, in Umvoti County, and Tabamhlope, or White Mountain, 6,512 feet, near Estcourt.



Umhlatuzan River [*Photo by Trappists*

RIVERS.—Owing to the configuration of Natal, it is unhappily the case that but two rivers in the country are navigable at all, and those only for a few miles from the coast. The very circumstance which bestows on the Province its variety of climates—that is, its steppes or terraces—cuts off this cheap and easy means of transport and pleasure.

Of first-class streams there are three—the Tugela, the Umkomaas, and the Umzimkulu. The Tugela, which is in the north of the Province, is the longest and most beautiful. Taking its source in the Drakensberg, as already stated, it leaps with one bound over a cliff 2,000

feet sheer, into the Province. At sixty miles from the sea the Tugela is joined by the Buffalo River. The chief tributaries of the Tugela are the Klip, Sundays, and Buffalo Rivers from the north, and the Mnwe, Umlambonga, Little Tugela, Blaauw Krantz, Bushman's, Mooi, and Inadi Rivers from the south. These, again, have numerous tributaries, such as the Sand, Inkunzi, Waschbank, Incandu, Ingagane, and Ingogo.

The Umzimkulu ranks next to the Tugela in size, and long before it in usefulness. Its scenery is rich in grandeur, and especially beautiful at the mouth.

The Umkomaas ("Gatherer of Waters") rises in "Giant's Castle," and flows through wild and interesting scenery, which here and there becomes more distinctly English and homelike than that of the Tugela. On the whole, however, it retains its quaint African characteristics. Its most important tributaries are the Uzani, Eland's, and Umkobeni, from the north, and the Inhlaveni and Ixopo from the south.

There are five second-class rivers in Natal, viz., the Umvoti, Umgeni, Umlaas, Illovo, and Umtamvuna. Amongst the third-class streams, commencing to count from the northern frontier, are the Sinkwazi, Nonoti, Umhlali, Tongaat, Umhloti, and Great and Small Umhlangas, in Victoria County; the Umbilo, Umhlatuzan (flowing into the Bay at Durban), Umbogintwini, and Amanzimtoti, in Durban County; the Amahlongwa, Umpambanyoni, Umzinto, Ifafa, Umtwalumi, and Umzumbi, in Alexandra County; and the Umbizana, in Alfred County. The tributaries of these minor streams are far too numerous to particularise here, but, from what has been set down, the reader, bearing in mind the size of the Province, will realise how well-watered and fertile it is.

*The FLORA of Natal is not only of great beauty, but is also of a most varied character, ranging from an almost tropical vegetation in the coast districts to a sub-alpine one on the crests of the Drakensberg, and to enumerate even a tithe of the beautiful flowers, trees, and climbing plants included in it would require more space than can be allowed in a work of this kind. An unusually large number of the indigenous plants of the Province have been cultivated in Europe, and some of them have been hybridised and improved almost beyond recognition; within the last few years the Streptocarpus hybrids, now so well known and so much admired, have been mainly if not altogether produced by crossing *Streptocarpus wendlandii*, a native of Natal, with S. *dunnii*, a Transvaal plant, and the progeny of these plants is said now to rival the Gloxinias in beauty. Some of the Gladioli, Clivias, Kniphofias and others have been similarly used and are now great favourites in cultivation. In the coast or sub-tropical district, flowers are to be found almost the year round, but in the upper districts during the winter months they are but little seen, the veld being brown and quite bare of flowers, and the forests dark and sombre, with scarcely a flower to enliven the scene. As soon as the spring rains have fairly set in this is quite changed, the young grass becomes emerald green and the veld is studded with flowers of the most varied colours, and a railway journey in the upper districts becomes a real treat to the lover of flowers. The traveller at this season can hardly fail to note how important a part the railways take in the distribution of the native plants; and being fenced on both sides and cattle excluded, the plants come to maturity and bear their seeds which are scattered far and wide for long distances, while outside the railway fences, especially towards the close of the season, all is barren and dull, cattle and sheep having eaten and trampled down the plants until but few flowers are seen. It is unfortunate that the railways in the upper districts do not pass near to any of the large forests, for it is in and around the margin of these forests that the flora is seen at its best. Inside the forest the climbing plants find their way to the tops of the trees, where they bear their flowers and mature their seeds, while the branches and stems of many of the larger trees are frequently covered with epiphytal orchids of different species, mostly bearing white or yellowish flowers, which, however, are of botanical interest only, while the margins of the brooks are literally covered with many charming and interesting ferns, and from the trees and rocks are often seen hanging in profusion the curious *Lycopodium gnidioides* and *L. verticillatum*, with *Selaginella kraussinana* carpeting the ground beneath. Though

---

By J. Medley Wood.



Aloes

epiphytal Orchids are not very showy, many of the terrestrial ones are exceedingly so. They commence flowering when the spring has fairly set in, and the different species flower in succession until about the end of March, an exception being the pretty little Swan Orchid (*Cynorchis compacta*) which flowers in July and August ; it is peculiar to Natal and is rather rare.

Amongst the forest trees bearing conspicuous flowers may be mentioned the Cape Chestnut (*Calodendron capense*) with large trusses of lavender-purple-spotted flowers ; Natal Bottle Brush (*Greyia sutherlandi*) with spikes of brilliant scarlet flowers ; several species of *Erythrina* all with scarlet papilionaceous flowers, and the singular *Alberta magna* of the midlands, whose flowers are a dullish red, but whose winged seed-vessels become bright scarlet and remain a considerable time on the tree, rendering it conspicuous even at a considerable distance. In the upper districts *Dais cotinifolia* with pink flowers is often seen and admired and on the coast the Umzimbiti (*Millettia caffra*) with purple flowers ; Isifiti (*Baphia racemosa*) with white and orange sweetly scented flowers, and *Schotia brachypetala* with deep crimson ones.

Belonging to the genus EUPHORBIA there are many species ranging from the small *E. sanguinea*, which is trodden under foot on walks and bare places all over the Province, to the large arborescent species such as *E. grandidens*, *E. arborescens*, and *E. tirucalli*, which are found on the coast and in the midlands, and are often mistaken for Cacti, to some members of which order they bear a close resemblance. The two first-named species are singular objects, being apparently leafless, and standing gaunt and bare on the hills in rocky places or in the bush ; the milky juice of these plants is vesicant, and has been used for painting the copper on the bottoms of ships to preserve from rust or fouling. In the midland and upper districts there are also most singular specimens of this genus which have the appearance of large boulders, an appearance caused by the dense growth of the numerous stems which are closely appressed to each other, and only attain a height of 10 to 15 inches.

Another singular genus of plants, some members of which are often mistaken for Cacti, is *Stapelia*, belonging to the order of Asclepiads; the headquarters of this genus is Cape, Orange River Provinces and Transvaal, but the species bearing the largest flowers is a native of Natal, and is known as *Stapelia gigantea*; all, or nearly all, of the flowers of this genus of plants are unpleasantly scented and are popularly known as "Carrion Flowers."

In rocky places, edges of precipices, and occasionally in open ground at from 2,000 feet above sea level to the Drakensberg, are found three or four species of *Encephalartos*; these plants belong to the order *Cycadaceae*, and are a connecting link between the flowering plants and the ferns, having the venation and sometimes the vernation of the ferns and the fructification of the conifers; they have a trunk sometimes reaching to nearly twenty feet in height, crowned with a rosette of fronds each four to six feet or more in length, which are renewed every second year, in the alternate years the plants bearing cones, those of the female plant containing a number of scarlet seeds, those of the male pollen only; in the wild state these plants seldom bear more than a single cone in each season, but a plant in the Durban Botanic Gardens bore in one year, 13, and in another 11 cones, this being a male plant.

Of PALMS there are two species only, *Hyphaene crinita*, having fan-like leaves, and being a near relative of the "Doum Palm" of Egypt (*Hyphaene thebaica*); this plant is never, in Natal, found far from the sea coast, nor does it, except in favoured situations, attain a large size, though in some parts of Zululand it is very luxuriant; a fine specimen of it may be seen in the Durban Botanic Gardens, but unfortunately it is a male plant; the other species is *Phoenix reclinata*, and is found in great luxuriance in the coast districts reaching to 2,000 feet above sea level, its very graceful feathery fronds giving quite a tropical aspect to the scenery. Another plant found in the same localities and often in company with it is *Stretlitzia augusta*, which is a very conspicuous object on the South Coast line after passing Isipingo, its enormous simple leaves, and curious orange and blue bird-like flowers are very attractive, and it is one of the few plants that are fertilised by birds; it is much grown for ornament in Europe, and can be seen on the South Coast line in company with the Hyphaene and Phoenix. In the valley of the Tugela River, and perhaps in a few other places in the Province is to be found a tree known as *Kigelia pinnata*, a tree which is perhaps more plentiful in some parts of Rhodesia than in Natal; it bears very large dull purple flowers three or four inches in diameter, followed by a fruit hanging from a long footstalk which lengthens as the fruit matures; this fruit is cylindrical in shape, and hard and woody, weighing several pounds. Two specimens of it are in the Durban Botanic Gardens, where they regularly bear their flowers and fruits.

For shade-giving trees there are on the coast the Umkuhla (*Trichilia emetica*) fine specimens of which may be seen on the Berea, Durban, and which as a beautiful shade-tree can scarcely be surpassed. Several species of *Ficus* both on the coast and in the midlands yield good shade, as also does the singular Flatcrown (*Zygia fastigiata*) so common in coast districts; *Hibiscus tiliaceous* is frequently planted in the streets of Durban, but it is essentially a coast plant.

LAW AND COURTS.—Roman-Dutch Law is the recognised code for the Europeans of the country, while English precedents are often quoted in the Courts. The rights and duties of natives are, for the most part, regulated by native law, which has been carefully codified, it being necessary, for the present, that they should remain, in many respects, upon a different footing to the other sections of the community. Indian emigrants were introduced into Natal under special laws and regulations for their protection, and for securing the proper carrying out of the indentures executed in India.

The laws are administered by four judges, who visit in turn each circuit of the Province, and sit at stated intervals as a Provincial Division of the Supreme Court of South Africa. The inferior courts are presided over by magistrates. There is also a Native High Court, consisting of four judges, for the administration of justice amongst natives.



A Day's Sport

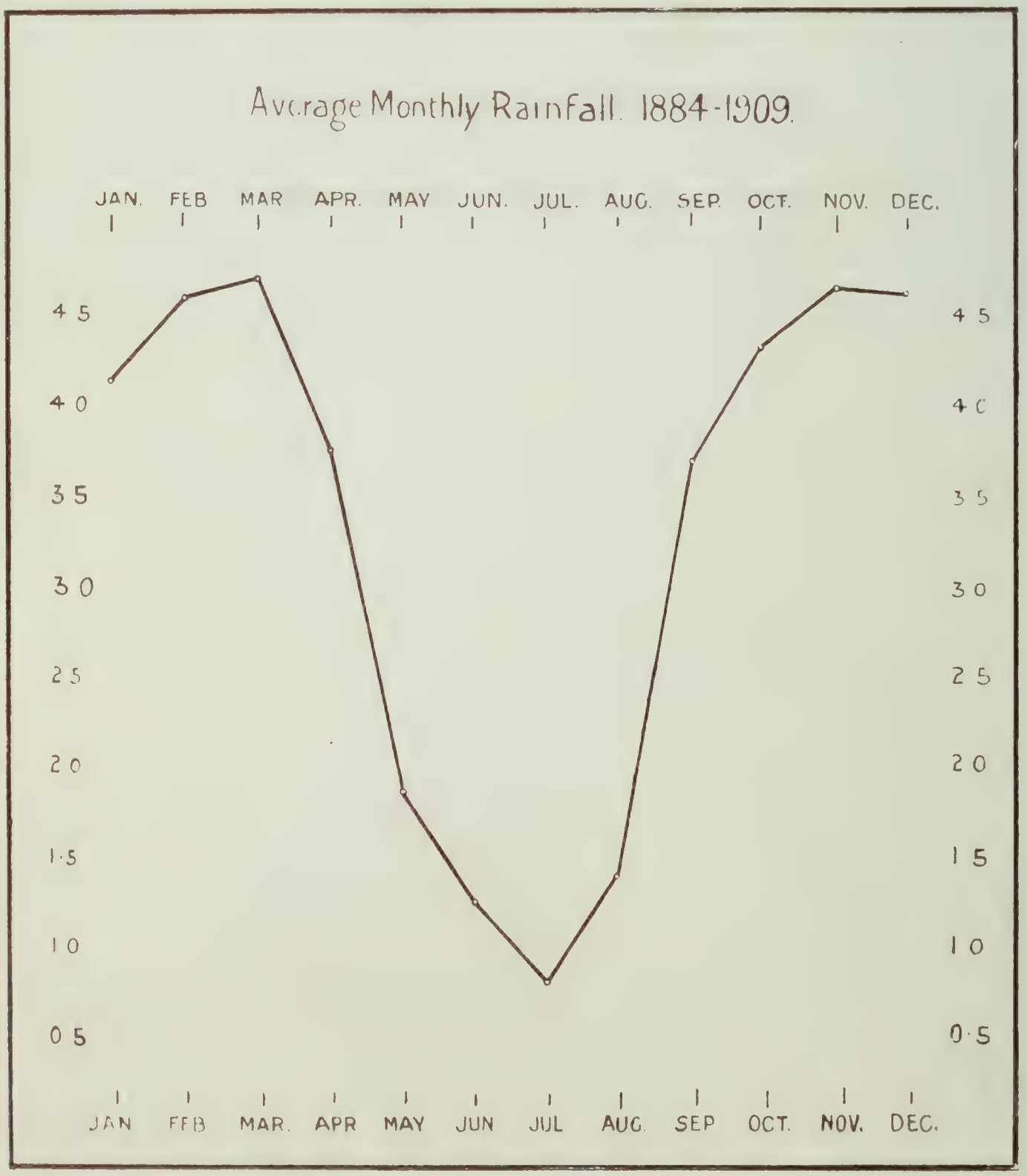
GAME LAWS—NATAL AND ZULULAND.—By way of warning to sportsmen, it may be mentioned that a law for the protection of the various descriptions of game is in force in the Province of Natal, including Zululand. Persons are prohibited, between the 16th August and 30th April (both dates inclusive), from hunting or killing certain varieties of birds known as the partridge, pheasant, dikkop, crane, wild guinea fowl, wild duck, wild geese, turkey buzzard; also hares, rabbits, and all varieties of the antelope species, such as the impala, rheebok, boschbok, bluebok, klipspringer, duiker, eland, springbok, and imbabala. The hippopotamus (sea cow), hartebeest, eland, koodoo, rietbok, rooi reibok, steenbok, blesbok, red boschbok, oribi, buffalo, waterbuck, rhinoceros, imbabala, impala, inyala, klipspringer, inhlengane, paauw, koraan, crane, ostrich, and secretary-bird, all known as Royal Game, may not be killed excepting by special licence from the Administrator, which can only be given between the 1st May and 15th August. The following insectivorous and other wild birds may not be killed except by express permission of the Administrator for the purposes of scientific research, viz., locust bird (large or small) tick-bird (red beak), swallows (all varieties), wagtail, stork, and canaries, cuckoos, flamingoes, herons, ibis, secretary-bird, warblers, and wood-peckers.

CLIMATIC AND OTHER CONDITIONS.—By reason of the fortunate position of Natal, it is not only one of the most salubrious countries in the world, but it, as has already been pointed out in a general way, enjoys a scale of climates not often obtainable in one country, and in such a comparatively limited area. Being in the South temperate zone, about 230 miles at its northern point from the Tropic of Capricorn, its climates may be described as warm, temperate, sub-tropical, and in some cases cold.

The steppes, already described, rise from sea level to an altitude of two and a quarter miles above it, in the distance of a little more than one hundred miles. The various climates of these steppes are clearly marked and defined, thereby rendering the Province one of the finest of health resorts. At Pietermaritzburg, the capital, 2,218 feet, the average yearly temperature is about 64°. At intervals, during the Summer time, the temperature rises as high as 98°, while in Winter it sometimes falls as low as 28°. These, however, are occasional extravagances, for as a rule the mean is well maintained. At Durban the average is 69½°, and the extremes 98° and 42°. The average daily range does not exceed 20° however. In the winter months frost is sometimes seen on the coast lands, even at the sea level. Snow storms occur yearly in the uplands, and, as already stated, snow-clad peaks are no uncommon sight upon the Berg.

Disregarding light showers the average number of rainy days in Durban is 52 in summer and 21 in winter. The number of thunderstorms averages 24 during the summer and five during the winter months, but of late the number of thunderstorms occurring in the neighbourhood of Durban has undergone a marked diminution.

Practically, there are only two seasons in Natal, Summer and Winter. The former commences in October and ends with March. At midsummer the sun rises at five and sets at seven o'clock. At midwinter it rises at seven and sets at five. The twilight both in winter and in summer is exceedingly short. The spring and autumn are both brief, and so blended with the other seasons, as to be difficult of recognition.



METEOROLOGICAL

TABLE OF MEAN VALUES AT DURBAN, SIXTEEN YEARS, 1892-1908.

Year.	Mean Barometer.	Means of Temperature			Mean Moisture.	Rainfall.	Mean Wind Force	Mean Cloudiness.
		Max.	Mean	Min				
	Inches.	Deg.	Deg.	Deg.	Grains.	Inches.	Units.	
1892 ...	30·066	80·68	71·90	62·01	6·10	38·37	1·38	50·9
1893 ...	30·098	78·70	70·95	61·10	6·20	71·27	1·32	50·9
1894 ...	30·114	79·01	71·48	61·19	6·11	37·27	1·35	47·5
1895 ...	30·100	79·20	71·10	61·40	6·00	51·50	1·04	48·2
1896 ...	30·114	81·07	72·81	62·90	6·18	39·63	1·01	46·2
1897 ...	30·101	80·19	72·59	62·04	6·02	34·39	1·14	44·0
1898 ...	30·103	79·25	71·41	60·66	5·84	42·48	0·94	40·8
1899 ...	30·129	79·19	72·05	61·77	5·89	28·75	0·88	48·0
1900 ...	30·100	81·03	73·23	62·82	6·06	27·24	1·02	47·1
1901 ...	30·120	79·02	71·30	61·45	5·93	55·54	0·91	46·9
1902 ...	30·090	79·20	70·95	61·04	5·90	41·18	0·97	46·0
1903 ...	30·094	79·21	71·10	61·23	5·75	35·66	0·93	44·7
1904 ...	30·102	79·42	71·73	61·45	5·79	34·72	1·00	44·4
1905 ...	30·100	78·13	70·95	61·42	5·86	44·95	·92	47·7
1906 ...	30·107	78·50	71·25	61·32	5·86	41·58	1·02	43·7
1907 ...	30·117	78·03	70·75	61·20	5·81	38·78	·99	44·7
1908 ...	30·105	77·67	70·57	61·62	5·82	45·91	1·01	45·1

TABLE OF MEAN VALUES AT SUBSIDIARY STATIONS

Subsidiary Station.	Average Temperature for five years.		Average Highest Annual Temperature.	Average Lowest Annual Temperature.	Average Annual Rainfall for five years.
	Daily Max. (in shade)	Daily Min. (in shade)			
	Fahr.	° Fahr.	Fahr.	Fahr.	Inches.
Stanger	81·0	60·2	108·8	44·6	38·06
Verulam	82·6	60·9	105·8	41·0	35·38
Greytown	78·7	56·2	96·2	31·8	33·26
Newcastle ...	78·1	52·2	101·3	27·4	33·70
Estcourt	78·8	50·1	99·4	26·6	27·93
Richmond... ...	75·3	52·6	102·2	33·6	38·30
Port Shepstone ...	77·9	60·8	98·1	45·8	45·98
Maritzburg ...	79·8	53·0	106·0	32·0	33·80
Howick	77·1	48·7	100·2	24·8	31·08
Weenen	83·6	49·4	107·2	23·0	24·34

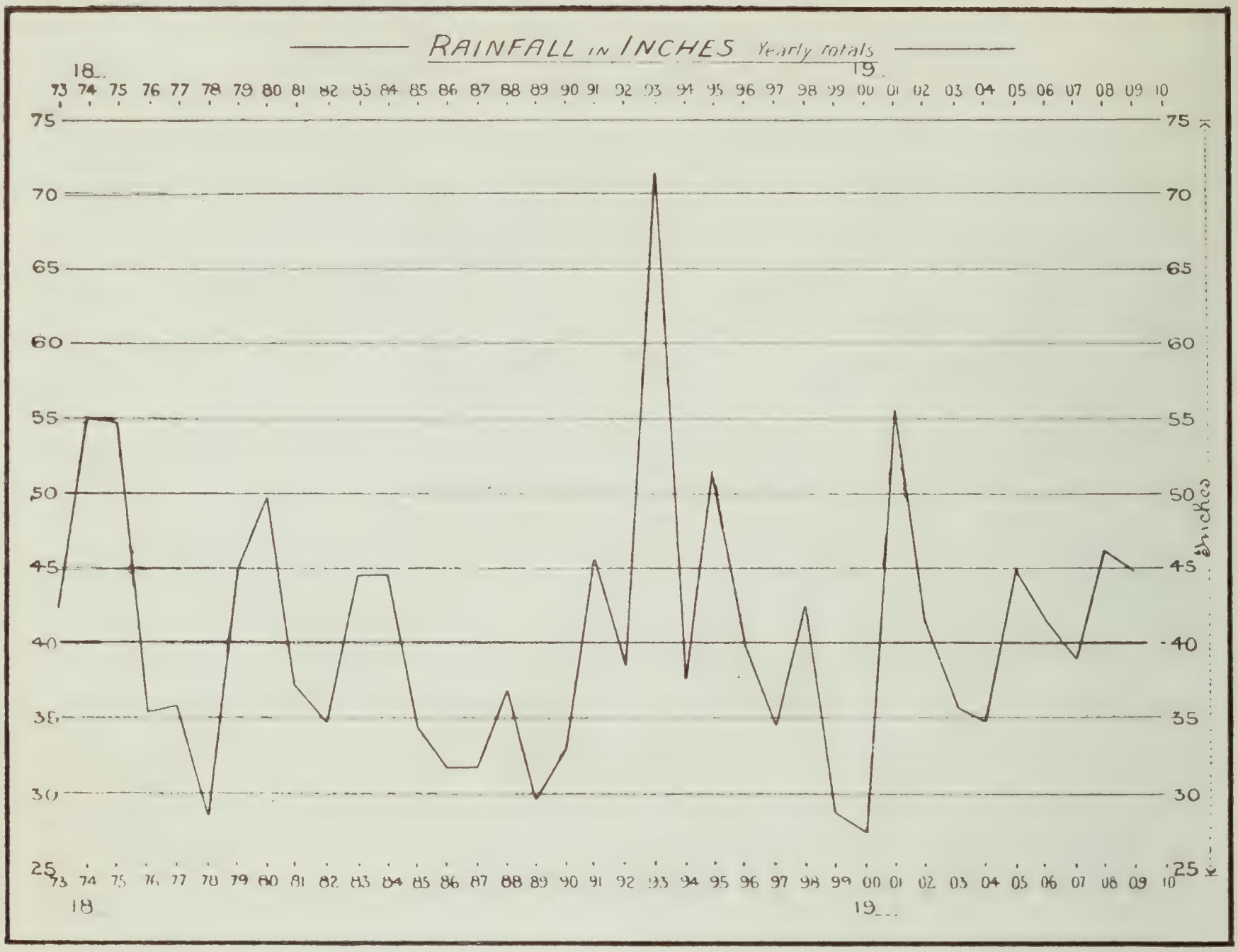
AVERAGE RAINFALL—TEN YEARS: 42·63 INCHES.

Distributed over :

January	4·23 Inches.	July	0·63 Inches.
February	4·65 "	August	1·44 "
March	4·94 "	September	5·18 "
April	3·47 "	October	5·59 "
May	1·75 "	November	4·63 "
June	0·92 "	December	5·20 "

MEAN FOR 24 YEARS—1885-1908.

Mean ...	30·107	79·88	71·62	61·46	39·71	5·93	1·13	46·7



For the year 1884, the Rainfall, registered at the Observatory, Durban, was 44·56 inches, the number of days upon which rain fell being 125.

The Temperatures recorded in the sun at the Botanic Gardens, Durban, are considerably higher than those registered at the Observatory. This is probably either due to a difference in the nature of the instrument used, or it may be attributed to insufficient protection of the thermometer from the heat arising from the ground.

The observations in the Botanic Gardens, Durban, from 1873-5 were made at a height of 128 feet above the sea level, and from 1876-1883 at a height of 150 feet. For the observations taken at the Observatory (from 1884 onwards) the height is 260 feet.

Counties, Towns, Villages, and Means of Access

Natal is divided into eight counties, namely, four on the Coast belt—Alfred, Alexandra, Durban, and Victoria; three in the Midlands—Pietermaritzburg, Weenen, and Umvoti; and one in the north of the Province—Klip River County. All vary in climate according to situation and elevation above sea level. The counties are again divided into districts, each district being presided over by a magistrate.

The following table gives the towns and villages in the several Counties, and the means of access thereto :

Counties.	Townships.	Villages	Rail or Post Cart Access
Alfred ...	Nil	Port Shepstone ...	South Coast Line.
		Marburg	*Via* Port Shepstone. Richmond
		Harding	Post Cart from Port Shepstone or
Alexandra ...	South Barrow	Scottsburg ...	South Coast Line.
		Umzinto	Umzinto Branch *via* Alexandra Jct. (South Coast Line)
Durban ...	Durban ... (Seaport)	Sydenham	Berea Suburb of Durban.
		Umgeni	North Coast Line.
		Isipingo	South Coast Line.
		Bellair	Main Line.
		Pinetown	Main Line.
Victoria ...	Verulam ...	... ...	North Coast Line.
		Tongaat (Victoria)	North Coast Line.
		Umhlali	North Coast Line.
		Stanger	North Coast Line.
Pietermaritz-burg	P.M.Burg ... (Capital)	... ...	Main Line.
		Richmond ...	Richmond Branch *via* Thornville Jct. (Main Line).
		Byrne	*Via* Richmond.
		Stuartstown (Ixopo) ...	Rail from Pietermaritzburg, *via* Natal-Cape Line to Donnybrook, and then by narrow gauge; or rail from Durban *via* South Coast Line to Esperanza, and then by narrow gauge line.
		Camperdown ...	Main Line.
		Edendale ...	Rail from P.M.Burg, Natal-Cape Line.
		Bulwer	Rail from P.M.Burg to Donnybrook, Natal-Cape Line. Post Cart from there.
		Howick	Main Line.
		Impendhle ...	Rail from P.M.Burg to Elandskop, Natal-Cape Line, Post Cart from there.
		Lidgetton ...	Main Line.
		Nottingham ...	*Via* Nottingham Road (Main Line).
		York	*Via* Impolweni (Greytown Branch).
		Kirchdorf ...	*Via* New Hanover (Greytown Branch).
		New Hanover ...	Greytown Branch Line.
Klip River...	Ladysmith ...	... ...	Main Line.
	Newcastle ...	... ...	Main Line.
	Charlestown	... ...	Main Line.
	Dundee ...	... ...	Dundee Branch, *via* Glencoe Jct. (M.L.)
		Van Reenen ...	Harrismith Brch., *via* Ladysmith (M.L.)
		Pomeroy... ...	*Via* Dundee.
		Upper Tugela ...	Post Cart from Ladysmith.
Umvoti ...	Greytown ...	... ...	Greytown Brch., *via* Pietermaritzburg.
		Hermansburg ...	Greytown Brch., *via* Pietermaritzburg.
		Krantzkop ...	Post Cart from Greytown.
Weenen ...	Estcourt ...	... ...	Main Line.
	Weenen ...	... ...	Rail, narrow gauge, from Estcourt.
		Weston	*Via* Mooi River (Main Line).
		Colenso	Main Line.

Zululand is not included in the foregoing. This Province is divided into the following magisterial districts : Eshowe, Emtonjaneni, Nqutu, Mahlabatini, Ndwandwe, Ubombo, Ingwavuna, Umlalazi, Lower Umfolozi, Hlabisa, and Nkandhla. Eshowe is the principal town, and is reached by post cart from Ginginhlovu (North Coast Branch Line).

FINANCE.—Statistics in connection with the revenue and expenditure of Natal, from the years 1859 to 1909-10, form an interesting object lesson on the progress of a new land. In reading these figures, it must always be remembered that from the first-named year till 1870, the Colony was more or less hampered by peculiar circumstances. From 1870 till about 1886, the discovery of gold and diamonds in the neighbouring States imparted a fillip to the industries of the people. From 1886 to the present time, a new epoch may be said to have commenced, as the following list will show:—

REVENUE AND EXPENDITURE FROM 1859 TO 1909-10.

REVENUE.	£	s.	d.	EXPENDITURE.	£	s.	d.
1859	50,082	19	4	1859	47,128	9	2
1860	77,480	8	2	1860	73,002	8	10
1861	107,465	6	9	1861	113,460	3	9
1862	98,086	6	3	1862	83,886	2	6
1863	119,042	5	0	1863	94,033	16	10
1864	151,049	9	10	1864	137,979	16	11
1865	118,146	15	4	1865	160,153	8	10
1866	94,884	13	9	1866	126,067	18	7
1867	96,780	18	11	1867	118,328	13	3
1868	95,762	1	11	1868	117,255	11	5
1869	111,231	19	7	1869	108,406	10	4
1870	126,293	3	0	1870	117,009	16	8
1871	125,628	6	6	1871	118,657	1	3
1872	180,498	12	7	1872	132,978	3	5
1873	207,392	1	9	1873	173,277	15	11
1874	247,259	5	10	1874	306,364	14	0
1875	260,271	8	2	1875	307,025	14	2
1876	265,551	15	4	1876	261,933	17	4
1877	272,473	12	10	1877	283,823	12	8
1878	369,383	16	10	1878	387,067	13	1
1879	473,478	1	6	1879	491,909	19	6
1880	582,715	1	0	1880	477,100	15	5
1881	439,583	2	1	1881	394,854	6	1
1882	657,737	13	9	1882	659,030	19	3
1883	620,496	10	8	1883	697,264	10	3
1884	610,936	18	9	1884	707,527	18	3
1885	662,915	0	4	1885	774,158	19	0
1886	600,177	17	0	1886	717,414	12	10
1887	924,840	13	4	1887	689,572	17	0
1888	990,614	0	0	1888	781,471	13	0
1889-90	1,507,788	9	6	1889-90	1,444,963	18	3
1890-91	1,318,769	1	0	1890-91	1,393,895	13	2
1891-92	1,392,455	5	5	1891-92	1,280,964	15	8
1892-93	1,069,678	6	2	1892-93	1,099,858	7	7
1893-94	1,011,116	18	5	1893-94	1,082,373	1	8
1894-95	1,169,780	15	1	1894-95	1,148,093	14	4
1895-96	1,457,338	2	9	1895-96	1,282,484	5	8
1896-97	2,213,074	1	5	1896-97	1,624,998	5	4
1897-98	1,964,314	18	11	1897-98	1,812,318	3	8
1898-99	2,081,349	4	10	1898-99	2,147,601	16	1
1899-1900	1,886,710	2	1	1899-1900	1,990,522	7	0
1900-01	2,970,741	16	11	1900-01	2,480,932	6	3
1901-02	3,439,820	0	0	1901-02	3,097,600	0	0
1902-03	4,334,175	4	3	1902-03	*5,102,006	18	1
1903-04	4,160,145	4	0	1903-04	4,071,438	18	0
1904-05	3,384,849	5	4	1904-05	3,829,588	1	3
					†200,000	0	0
1905-06	3,665,989	3	9	1905-06	3,670,608	6	0
1906-07	3,471,932	2	10	1906-07	3,681,914	1	9
	‡11,687	16	3				
1907-08	3,510,350	4	9	1907-08	3,689,752	3	1
1908-09	3,569,275	5	5	1908-09	3,530,576	11	10
1909-10	§4,293,727	12	10	1909-10	§3,530,348	17	2

* Includes War Expenditure, £1,139,792 12s.
† Amount set aside as Contingencies Fund under Act 21, 1904.
‡ Cash Surrenders treated in previous years as Expenditure, and brought into Revenue in 1906-07.
§ To 30th May only (eleven months).

The existing Public debt of Natal is £22,665,591, against which there was, at the end of the financial year (30th May, 1910), an accumulated sinking fund of £1,004,308. By far the greater part of the first named sum has been expended on Public Works of a reproductive and permanent nature.

IMPORTS AND EXPORTS

NATAL.

Year.	IMPORTS.	EXPORTS.
1900	£6,799,543	£1,343,446
1901	10,354,973	5,120,137
1902	15,656,052	10,527,008
1903	16,600,259	12,268,614
1904	11,078,650	9,400,771
1905	11,313,967	10,265,521
1906	9,975,725	10,405,707
1907	9,061,446	10,049,132
1908	8,330,659	9,622,474
1909	10,712,208	10,721,001

EXPORTS OF SOUTH AFRICAN PRODUCE BY SEA

(Principal Articles only are shown.)

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909
	£	£	£	£	£	£	£	£	£	£
Bark	46,479	69,850	74,554	70,581	92,911	102,666	88,514	132,325	138,376	144,000
Coal—Cargo	3,224	60,375	13,596	8,239	12,659	116,307	113,353	191,735	205,365	277,000
" —Bunker	108,687	326,152	298,180	293,426	389,133	438,714	383,786	525,932	573,917	600,000
Hides—Ox & Cow	21,658	32,984	24,515	15,882	25,673	28,321	48,369	109,247	115,821	192,000
Skins—Sheep	8,587	16,413	10,568	7,126	7,975	16,804	26,478	35,338	29,264	61,000
Wool	61,103	253,938	247,152	292,231	289,132	408,845	548,306	621,153	673,204	820,000
Hair	9,598	10,891	23,066	31,294	29,174	48,196	53,675	50,077	45,899	52,000
Sugar	145,009	112,243	161,548	160,547	81,540	94,289	33,800	25,083	49,899	155,000
Tea	13,347	15,415	16,928	15,497	11,078	10,560	7,267	27,058	19,174	16,000
Maize	59,508	33,726	28,696	474	30,993	142,028	62,139	210,570	256,410	445,000
Matches	5,173	5,487	5,284	3,937	7,000	18,418	30,177	32,879	34,626	37,000
Soap	...	...	...	103	1,286	5,356	12,991	21,624	22,330	28,000
Tobacco—Unmfd.	12,685	33,143	11,727	7,640	3,535	6,672	3,285	2,069	1,282	2,000
" —Manfd.	6,543	5,848	1,656	771	823	2,028	1,934	3,465	7,235	9,000
Raw Gold	1,150	652,052	1,937,512	1,138,768	917,181	1,077,646	1,172,918	1,187,376	1,008,186	1,025,000

In addition to shipments oversea, large quantities of sugar, tea, matches, soap, fresh beef, and fruit were exported overland.

The values of exports of the following articles to the Transvaal, and Orange Free State, during the three years, 1906-8, were :—

	1906	1907	1908
	£	£	£
Sugar	306,551	314,355	479,979
Tea	12,592	12,901	19,198
Matches	42,853	42,320	43,996
Soap	13,607	29,272	36,312
Fresh Beef	2,236	147,514	192,557
Fruit, Fresh	87,960	85,172	67,201

POPULATION

The last census of the population of the Province of Natal is that of May, 1911. According to that census the various nationalities of the people were as follows :—

Africans	951,808
Europeans	98,582
Other Coloured races	141,568
Total	1,191,958

Average Wages of Labour in Natal

The following particulars are summarised from the latest information received, but no guarantee of accuracy can be given :—

	DAY.	WEEK.	MONTH.	YEAR.
WHITE LABOUR (Skilled)—				
Artisans	10s.	...	...	...
Bakers	...	70s.	...	...
Blacksmiths	10s. to 14s.	...	...	...
Boilermakers	10s. to 14s.	...	...	...
Bookbinders	...	60s. to 70s.	...	...
Bricklayers	10s. to 14s.	...	...	...
Brickmakers	10s.	...	...	...
Carpenters	10s. to 13s.	...	...	...
Clerks	...	...	£10 to £37	...
Compositors	11s. to 12s.	...	..	...
Coopers	10s.	...	...	...
Domestic Servants (Male)...	...	...	...	*£24 to £60
" " (Female)...	...	..	...	*£30 to £50
" " Cooks ...	...	...	...	*£36 to £50
Dressmakers	...	...	£4 upwards.	...
Engine Drivers—(Mines) ...	12s.	..	...	...
" " —(Railways)	11s. 6d. to 15s.	...	...	...
Farm Overseers	..	£3 to £10	...	...
Firemen...	8s. to 10s.	..	...	...
Fitters' Engineers	10s. to 14s.	...	...	...
Labourers	6s. to 8s.	...	...	..
Lino. Operators	...	70s. to 90s.	...	...
Machine Minders	...	70s.	...	...
Masons	10s. to 15s.	...	..	...
Miners	15s.	...	...	..
Mine Managers	...	...	£30 to £50	..
Moulders	14s.	...	...	...
Painters	9s. to 14s.	..	...	...
Plasterers	13s.	...	...	...
Plumbers	10s. to 14s.	...	...	...
Saddlers	10s. to 12s.	...	...	...
Sawyers	10s. to 14s.	...	...	...
Shipwrights	13s. to 14s.	...	...	...
Shoemakers	10s. to 11s.	...	...	...
Shop Assistants	...	...	£6 to £18	...
Stone Cutters	10s. to 11s.	...	...	...
Tailors	10s. to 15s.	...	...	...
Tanners	11s.	...	...	...
Turners (Metal)	14s.	...	...	..
Wagon Makers	10s. to 14s.	...	...	...
NATIVE LABOUR (Unskilled)—				
Agricultural Labourer ...	...	...	6s. to 30s.	...
Cost of food and lodging...	...	...	10s.	...
Urban Labourer	2s 6d. to 3s 6d.	...	...	...
Mining Labourer	...	...	25s.	...
Cost of food and lodging...	...	...	10s.	...
Domestic Servants (Male)...	...	..	10s. to 30s.	...
" " (Female)...	...	...	15s. to 25s.	..
INDIAN LABOUR—				
Agriculture (Male)	...	...	10s. to 15s.	...
" (Female) ...	...	...	5s. to 7s. 6d.	...
Cost of food	...	...	15s.	..

*Cost of food must be added.

NOTE.—General cost of living as compared with England add 30 to 50 per cent.

How to Reach South Africa.—List of Sailings, Fares, etc.

FARES TO NATAL.

FROM ENGLAND.	SINGLE			RETURN		
	1st Class	2nd Class	3rd Class	1st Class	2nd Class	3rd Class
Union-Castle Line.	£ s. d	£ s. d	£ s. d	£ s. d	£ s. d	£ s. d
West Coast Route.						
Mail steamers leaving Southampton every Sat.	40 19 0	From 30 9 0	18 18 0	73 14 0	From 54 16 0	34 0 6
Intermediate steamers leaving London and Southampton weekly	31 10 0	26 5 0	12 12 0	56 14 0	47 5 0	22 13 6
East Coast Route.						
Steamers leaving London and Southampton every four weeks	47 7 0	33 10 0	20 15 9	85 4 6	60 6 0	37 8 6
***Round Africa.**						
Outwards by Suez Canal and East Coast, returning *via* Coast ports and West Coast route or *vice versa*.	...	...	.	70 19 3	53 15 6	32 17 9
Rennie Line.		Inter-mediate.	2nd class.		Inter-mediate.	2nd class.
Sailings from London every 12/14 days	30 9 0	22 0 0	20 0 0	54 16 0	39 12 0	36 0 0
Natal Line.		2nd class.	3rd class.			3rd class.
Sailings from London every 12/14 days	From 25 4 0	17 17 0	...	45 7 0	32 2 6	...
German East African Line.						
Three-weekly service from Southampton.	From					
By West Coast route ...	37 2 6	28 15 0	15 15 0	66 16 6	51 15 0	28 7 0
By East Coast route ...	46 11 0	34 7 6	20 12 6	83 16 0	61 17 6	37 2 6
***Round Africa.**						
Outwards by Suez Canal and East Coast, returning by West Coast route or *vice versa*	..	...	...	76 14 6	53 13 0	31 13 0
Aberdeen Line.						
Monthly sailings from London and Plymouth ...	33 0 0	...	14 0 0	55 0 0	...	24 0 0
P. & O. Branch Line. (One class only.)						
Monthly sailings from London	...	...	14 0 0	...	...	24 0 0
Bucknall Line.						
Monthly sailings from London	27 0 0	...	...	48 12 0	...	...
White Star Line.						
Monthly sailings from Liverpool		To Cape Town from	15 15 0	Outwards to Cape returning from		Town Natal from 31 3 9
Blue Funnel Line.						
Sailings about every six weeks from Glasgow and Fishguard	To Cape 27 10 0	Town		Outwards to Cape returning from 47 0 0		Town Natal

NOTE.—The figures shewn above are subject to alteration, and should be confirmed by application to shipping companies, or any office of Thos. Cook & Son.

* See page 568.


R·M·S·
"BALMORAL CASTLE"
13,561 Tons
FIRST CLASS SMOKING ROOM
FIRST CLASS SMOKING LOUNGE
UNION-CASTLE
MAIL STEAMSHIP COMPANY LTD
FIRST CLASS LIBRARY.
FIRST CLASS SALOON.
PROMENADE DECK
1ST CLASS
TRAVEL IN LUXURY
THIRD CLASS SALOON

Useful Information for Emigrants

Sir Richard Solomon, K.C.M.G., is the High Commissioner for the Union of South Africa. His office is at Victoria Street, Westminster, London, S.W. Those who contemplate settling in the Union, and desire any information or advice, would do well to communicate with him.

LAND SETTLEMENT AND AGRICULTURE.—Much useful information for emigrants will be found in the Agricultural and Land Settlement sections of this book, on pages 375-434.

STEAMSHIP SERVICE.—The steamship services with Natal are given in full, on page 565.

Customs, Luggage, Conveyances, Hotel Accommodation, etc. (Durban, Port Natal).—Personal luggage is admitted free. Other articles are dutiable according to tariff. Passengers should have each package legibly addressed in order to facilitate the passing of the same by Customs' officers.

Those wishing to forward their luggage, etc., by rail, should make application to the Station Master, whose representative will be in attendance on arrival of the vessel at the wharf.

Trollies to take luggage from the wharf to the Town of Durban are provided by a number of firms.

Trams run at frequent intervals between the docks and Durban, and a plentiful supply of cabs and jinrickshas will also be found.

Durban is well provided with good hotels and boarding-houses. The daily tariff at the former varies from 8s. 6d. to 12s. 6d., and the monthly rate at the latter may be put down at between £6 and £8.

Thos. Cook and Son's South African Offices

Messrs. Thos. Cook and Son, whose name is associated with tours all the world over, have, for the convenience of tourists visiting South Africa, established an office at Cape Town (corner of Strand and St. George's streets), and a branch in Natal at Mutual Buildings, Smith Street, Durban, facing the new Town Hall.

Every phase of the tourist business is conducted, and oversea visitors will there be able to obtain full information of travel throughout South Africa. By arrangement with the railway administrations and steamship companies, circular tour tickets are issued at a considerable reduction, covering all the principal towns and places of interest in Natal, Transvaal, Orange Free State, Rhodesia (Victoria Falls, Matopos, Zimbabwe Ruins, etc.), Cape Province, Portuguese East Africa. Practically any route can be covered, and Messrs. Thos. Cook and Son will prepare itineraries, furnish information as to train service, and advise what can be best accomplished in the time at one's disposal. The circular tour tickets allow break of journey at any station *en route*.

Special facilities are given for visiting the Natal battlefields, in and around Colenso and Ladysmith, and for a tour of the Drakensberg including Mont Aux Sources. Cook's have also arranged a number of short and interesting tours which should be taken before final departure from Durban. In particular there is the trip to Eshowe, the capital of Zululand, and of historic renown, and the ticket covers rail, motor, and hotel accommodation. The beauty spots on the Natal south coast line are covered by the "Inclusive Tours" arrangements, the principal resorts being, Amanzimtoti, Illovo Beach, Umkomaas, and Port Shepstone (the terminus of the line). Suitable day trips for which Cook's have arranged are: the Mariannhill Trappist Monastery (rail to Pinetown, thence drive), and the Umkomaas Rail and River Trip (rail to Umkomaas, motor launch up the river, and lunch). Detailed programmes are issued and will be supplied on application.

ONTARIO

All steamers are met on arrival by Messrs. Thos. Cook and Son's representatives, who will clear baggage through customs and transfer same to address, hotel, railway station or store.

Passengers leaving the steamer at Cape Town can obtain all literature relating to Natal, and to the whole of South Africa, at the Cape Town office, corner of Strand Street and St. George's street, and any information will gladly be supplied. In fact, Cook's invite all visitors to give them a call at Durban or Cape Town, and not only will they arrange the South African tour to the best advantage but they will, as agents for all the principal lines of steamers, provide all particulars of the various ocean services and secure the steamship accommodation, thus saving the worry which is usually incidental to such matters.

*ROUND AFRICA.—The Union-Castle and German East African Lines have services to Natal both *via* Suez and the East Coast, and by the West Coast route, and the fares quoted are for the trip round Africa by steamer the whole way. A variation which will appeal to most travellers, in fact, such an arrangement would be preferred by the majority, would be to combine a tour through South Africa with the East and West Coast services, leaving the steamer, say at Durban, and proceeding by a later boat from Cape Town, and in this connection Thos. Cook and Son can arrange for any desired route from port to port so as to include a visit to the principal towns and places of interest in South Africa. By way of illustration, the following specimen tour is submitted :—

From England *via* Suez and East Coast to Natal, thence by rail *via* Pietermaritzburg, Colenso and Ladysmith (Natal Battlefields for which Cook's will arrange for drives and hotel accommodation), Johannesburg, Pretoria, Mafeking, Bulawayo (for Matopos, World's View, and Khami Ruins), Victoria Falls, Bulawayo, Kimberley to Cape Town, thence continuing the steamer journey *via* West Coast route back to England (or *vice versa*).

In connection with the Union-Castle services :—
First class, £94 4s. 11d. Second class, £69 4s. 4d.

In connection with German East African services :—
First class, £99 12s. 11d. Second class, £71 18s. 4d.

These rates are inclusive of both steamer and rail fares. As already mentioned, however, the tickets can be issued to conform to individual requirements and Cook's will prepare itineraries for any journeys and furnish full information as to train service.



R.M.S. "Briton"

FROM UNITED STATES AND CANADA.—Through bookings by the different Transatlantic Steamship Companies can be arranged from New York, Boston, Philadelphia, Montreal, Quebec, Halifax, etc., etc., to Natal with tickets from American Inland Points in connection with the various services from England (see note "Booking Information").

FROM AUSTRALIA.—Through bookings also given from principal New Zealand Ports.

	SINGLE			RETURN		
	1st Class.	2nd Class.	3rd Class.	1st Class.	2nd Class.	3rd Class.
ABERDEEN LINE.	£ s. d.		£ s. d.	£ s. d.		£ s. d.
Monthly sailings from Brisbane, Sydney, Melbourne and Fremantle	31 10 0	...	13 13 0	55 0 0	...	21 10 0
P. & O. BRANCH LINE.						
Monthly sailings from Sydney, Melbourne and Adelaide ...	one class	from	13 13 0	one class	from	21 10 0
WHITE STAR LINE.						
Monthly sailings from Sydney, Melbourne and Albany ...	one class	from	15 15 0	one class	from	28 7 0
BLUE FUNNEL LINE.						
Sailings about every six or seven weeks from Sydney, Melbourne and Adelaide ...	25 0 0	...	...	42 10 0	...	...
FEDERAL-HOULDER-SHIRE LINES.						
Occasional sailings from Sydney, Melbourne, and Adelaide	22 0 0	...	11 11 0	39 3 2	...	19 7 11

The return fares quoted apply from Australian Ports to Natal and return from Cape Town. Connecting railway tickets from Durban to Cape Town, including Maritzburg, Natal Battlefields, Johannesburg, Pretoria, Bloemfontein, Kimberley, Bulawayo, Victoria Falls, or by any of the direct routes to Cape Town can be issued at reduced rates. Information concerning same can be obtained from Thos. Cook and Son's Australasian or South African offices.

FROM INDIA AND CEYLON.—FARES TO NATAL:—

	SINGLE.		RETURN.	
	1st Class.	2nd Class.	1st Class.	2nd Class.
GERMAN EAST AFRICAN LINE.				
Sailings every ten or twelve days from Bombay	Rs. 500	Rs. 330	Rs. 950	Rs. 627
NATAL LINE.				
Sailings about every three weeks.				
From Calcutta	Rs. 315	Rs. 252	Rs. 567	Rs. 504
From Colombo	Rs. 284	...	Rs. 511	...
BRITISH INDIA.				
Sailings every four weeks from Bombay	Rs. 500	Rs. 330	Rs. 950	Rs. 627

FROM FAR EAST.—Information as to the different services and fares from Japan, China, Straits Settlements, etc., to connect with the above mentioned sailings from India and Ceylon can be obtained at Messrs. Thos. Cook and Son's offices in Yokohama, Shanghai and Hong Kong.

BOOKING INFORMATION.—Messrs. Thos. Cook and Son are agents for all principal lines of steamers to South Africa from all parts of the world, and will supply detailed particulars of sailings and fares. They can also arrange for tours throughout South Africa, preparing itineraries for any route selected. Prospective visitors are therefore advised to apply to :—

COOK'S OFFICES

Ludgate Circus, London (Chief Office).

New York	San Francisco	Colombo
Boston	Melbourne	Calcutta
Chicago	Sydney	Rangoon
Montreal	Auckland	Hong Kong
Toronto	Wellington	Shanghai
Philadelphia	Bombay	Yokohama

or any of their branch offices in Great Britain ; or Hamburg, Berlin, Cologne, Amsterdam, Paris, Brussels, Vienna, Naples, Rome, or their numerous continental branches.

SOUTH AFRICAN OFFICES

Corner Strand and St. George's streets, Cape Town.
Mutual Buildings, Smith Street, Durban.

[This information has been carefully compiled, but liability cannot be accepted for its accuracy.]



Messrs. Thos. Cook & Son's Head Office, Capetown.

Cook's South African Circular Tours by Land and Sea, at specially reduced rates, offer exceptional facilities for travellers to visit all places of interest in South Africa. Special programmes have been prepared, which will be furnished on application, and detailed itineraries for any route desired, with cost, including hotel accommodation, may be obtained free of charge at Cook's offices in Capetown and Durban.

Visitors are recommended to call at Cook's offices, where every information will be given with regard to the most interesting places to visit within easy reach of Capetown and Durban, for which special tickets may be obtained inclusive of everything.

INDEX

	PAGE
AARD WOLF	480
Act of Union	25
Agreement Area—Lands within	131
Lands without	132
AGRICULTURE	375
Three Terraces	376
Tea Culture	379
Sugar Industry	382
Tobacco Industry	386
Wattle Industry	387
Maize	391
Forestry	397
Potatoes	399
Fruit	412
Research and Education	424
Land Settlement	426
Alcock's Spruit	199
Alexandra Park, Pietermaritzburg	128
Alexandra Junction	252
Albert Falls	302
Alfred County Railway	260
Amanzimtoti	245
Amatikulu	279
Arnolds Hill	290
Avoca	265
BRANCH LINES	289
Alfred County Railway	260
Bethlehem Branch	237
Bluff Line	243
Dundee-Vryheid	311
Greytown Branch	302
Harrismith-Kroonstad	237
Mid-Illovo Branch	119
Richmond Branch	289
Stuartstown Line	299
Umzinto Branch	252
Upper Tugela	310
Utrecht	314
Bambata	25
Bar, Durban Harbour	27
Battle of Dingaan	6
Battlefields, Colenso	173
Bay, Durban	35
Beacon Hill	165
Bellair	102
Belfort	302
Berea Road Station	97
Besters	229
Bethlehem	235
Bethlehem Branch Line	237
Birds and Mammals	475—503
Birth Rate, Durban	57
Blaauw Krantz River	171
Bluff	34
Bloemfontein	240
Boer War—First	18
Second	25
Balgowan	155
Bond Store, Durban	41
Boshoffs Road	148
Botha's Hill	114
Botanical Gardens—Pietermaritzburg	131
Durban	90
British Occupation	9
Brakwal	230
Breakwater, Durban	23
Brynbella	163
Buildings, Public	525
Bulwer	206
Bushman's River	362
CAMPERDOWN	110
Capacity and Work, Port	37
Cato Ridge	116
Cattle	305
Cedara	169
Cession of Natal by Dingaan	6
Cetshwayo	11
Cetacea	492
Chaka	4
Chakas Kraal	272
Charlestown	203
Chamberlain, Rt. Hon. J.	24
Chieveley	171
Champagne Castle	333
Cheetah, Natal	479
Civet Cat	479
Chiroptera	491
Clairmont	243
Climate	557
Clocolan	238
Coaling Plant, Durban	53
Coal	435
Colley, Sir G.	19
Congella	38, 98
Cornwall, Visit of Duke of	24
Copper	442
Counties, Villages, etc.	560
Courts and Law, Natal	556
Customs	41
Creighton	298
DAIRYING	400
Dalton	304
Dannhauser	199
Dargle Road	154
Darnall	277
Defence	505
Delagoa Bay	2
Dell	163
Depôt station	292
Deepdale	295
Dingaan	5, 169
Dinuzulu	25
Discovery of Natal	2
Donnybrook	296
Duiker	488
Duffs Road	266
Dundee to Vryheid	311
Dutch East India Company	2
Dutch Republic of Natalia	6
Drakensberg, The	321—358
DURBAN :—	
Harbour	27
Development of	28—53
Dredging Fleet	43

INDEX—*continued*

	PAGE
DURBAN—*continued*	
Seaside Resort	55—95
Birth Rate	57
Death Rate	57
Municipal Matters	58
Local Institutions	66
Law Courts	66
Commercial	76
Plan of	77
History of	77
Museum	82
Art Gallery	84
Post Office	86
Information Bureau	87
Zoological Gardens	93
Durban to Pietermaritzburg	97
EARLY ENGLISH SETTLERS	4
Edendale	293
Edentata	493
EDUCATION	471
Maritzburg	142
Transvaal	226
Eland	487
Elephant	483
Emancipation of Slaves	4
Emigrants, Useful Information for	566
Ennersdale	169
Eshowe	284
Esperanza	254
Empangeni	280
Estcourt	165
Exodus of Dutch Farmers	10
Expenditure, Military—Police	511
Exports and Imports	563
FERNHILL	153
Ficksburg	238
Finance	562
First Account of Natal	2
Fishing Districts	362
Fishing, Trout	359
Floating Dock, Durban	42
Flora	554
Fox Hill	120
Fox, Silver	480
Forestry	397
Frere	170
Fruit Growing	412
Fugitives' Drift	310
GAME LAWS	557
Germiston	210
Geology of Drakensberg Range	349
Gezubuso	294
Gillitts	112
Giant's Castle	337
Ginginhlovu	279
Glencoe Junction	197
Government—First	10
Game Reserve	337
Governors of Natal	522
Grange	147
Greenwood Park	265
Greytown Branch Line	302
Greytown	305
Greyville	263
Grysbok	488
HARBOUR, DURBAN	27
Harding	261
Hartebeest	488
Harrismith-Kroonstad Line	237
Harrismith	232
Harrison	114
Hatting Spruit	198
Heidelberg	208
Hemuhemu	294
Henley	293
Hill Crest	112
Hilton Road	148
Hippopotamus	490
History, Zulu	447
Honey Production	411
Hospital Siding	153
Horns, Natal Wild Game	484
Howick	151
Hunting Dog, Cape	480
Hyæna	480
ILLOVO RIVER	247
Illovo Settlement	430
Impala	487
Imports and Exports	563
Inchanga	114
Independent Government granted	21
INDIANS	465
Introduction of	14
History of	465-470
Industries, Pietermaritzburg	133
Ingagane	199
Ingogo	200
Inyala	486
Inyoni	278
Insectivora	492
Iron	442
Isandhlwana	18, 313
Isipingo	244
JACKAL, BLACK-BACK	480
Johannesburg	213
KING, RICHARD	8
Krantz Kloof	110
Kroonstad	236
Kudu	486
LADYBRAND	238
Ladysmith	185
Land Settlement	426
Laws, Game	557
Law Courts, Durban	66
Law and Courts, Natal	556
Leopard, The Natal	478
Lidgetton	155
Lighthouse, Bluff	34
Limestone	443
Lindley Road	235
Lion, Cape Sea	481
List of Sailings	565
Little Amanzimtoti	430
Lower Umkomaas	249

INDEX—*continued*

	PAGE
MAIZE	47, 391
Malvern	103
Mammals and Birds	475–503
Manderston	119
Maritzburg, City of	123
Marseilles	239
Maseru	239
Meets	235
Merebank	244
Melmoth	285
Meerkats	480
Mid-Illovo Branch Line	119
Middleton Settlement	430
Military Expenditure	511
Militia	511
Mimosa	165
Mining	435
Minerals other than Coal	441
Modderpoort	238
Mohair and Wool	109
Monkeys of Natal	477
Mooi River	159, 343, 363, 365
MONT AUX SOURCES	333
Mount Edgecombe	266
Mount Moreland	271
Mount Prospect	203, 285
Mountain System, Natal	551
Mungoose	479
Municipal Matters	58—77
MUSEUM—Durban	82
Natal	134
Transvaal	222
Mtunzini	279
Muishond, Natal	480
NATAL ANNEXED	9
National Convention	25
Naval Hill	173
Naval Squadron's Visit	45
Naval Volunteer Reserves	511
Nels Rust	289
Newcastle	199
New Hanover	304
Nonoti Mission Lands	430
North Coast Branch Railway	263
North Pier, Durban	33
Northern Territories	316
Land, Crown, Purchase Price, etc.	426
OCCUPATION, BRITISH	8
Officials, Chief Government	47
Orange Free State, Concerning the	236
Oribi	488
Ostrich Farming	410
Ottawa	268
Otters	481
Ottos Bluff	302
PARK RYNIE	252
Pallah	487
Parliament	519
Pentrich	121
Phœnix	266
Phosphates	444
Pietermaritzburg to Durban	97
PIETERMARITZBURG	123
Alexandra Park	126
Botanical Gardens	131
Umsindusi River	131
Golf Course	132
Social Institutions and Clubs	133
Shooting	133
Industries	133
Art Gallery	133
Museum	133
Religion	140
Education	142
Newspapers	142
Banks	142
Garrison, Police, etc.	142
Pieters	182
Pig Industry	107
Pinetown	106
Pioneers	502
Point, Durban	35
Population	563
PORT: ITS CAPACITY AND WORK	37—53
Statistics and Trade	45
Development	28—53
Plant, Coaling	53
Plan of Durban	77
Post Office, Durban	86
Police	512
Port Shepstone	256
Potatoes	399
Poultry	411
PRETORIA	219
Museum	222
Zoological Gardens	223
Public Buildings	525
Public Works Department	525
Postal and Telegraph	545
QUAYS, DURBAN	35
RAILWAYS	531
First in South Africa	16
Opening to Maritzburg	19
Connection and Accommodation	45
Mid-Illovo Branch	119
Reit Vlei	159
Red Hill	265
Reedbuck	488
Rhebok	488
Rhinoceros	482
Rosetta	159
Responsible Government granted	23
Reunion	244
Richmond	290
Richmond Branch Line	289
Rivers	553
Riverside	299
Rodentia	491
Rorke's Drift	310
SAILINGS	565
Sarnia	105
Scottburgh	252
Schroeders	304
Sable Antelope	487

INDEX—*continued*

	PAGE
Sea View	102
Settlements, Glance at Land	428—434
Seven Oaks	305
Serval Cat	478
Shepstone	257
Signal Station	34
Siege, Ladysmith	188
Sinkwazi	277
Sitatunga	486
South Coast Junction	100
South Breakwater	33
Somkele	280
Source of Tugela	329
Spion Kop	177, 193
Springbok	487
STATISTICS—Port and Trade	45
Gold Production	215
Standerton	207
Stamford Hill	263
Stanger	273
Stuartstown Line	299
Sutherlands	293
Sugar Industry	382
Sugar Lands, Government offered	427
Sweetwaters	147
Swinburne	232
TAYLORS	294
Tea District	274
Tea Culture	379
Telegraph and Postal	545
Thaba 'Nchu	240
Third Class Lands	434
Thornville Junction	119
Three Terraces	376
Tiger River	234
Tobacco Industry	386
Tongaat	271
Towns, Villages, Counties	560
Transvaal, Concerning the	224
Trade Statistics	45
Trout Fishing	359
Tugela	277, 329
Tweedie	154
ULUNDI	285
Umbogintwini	245
Umbulwana	182
Umgababa	247
Umgeni	264
Umgeni River	367
Umkomaas	249
Umlaas Road	116
Umsindusi River	131
Umsingi	308
Umtwalumi	255
Umzinto Branch Line	252
Umzinto	254
Umzumbi	255
Upper Tugela Branch Line	310
Utrecht Railway	314
VAN REENEN	231
Verulam	268
Victoria Road	302
Village Water Supplies	529
Villages, Counties, etc.	560
Volksrust	205
Vryheid-Dundee Branch	311
WAGES, Average	564
Waterbuck	488
Water Supplies, Village	529
War District	161
Waschbank	197
Waterworks	240
Wattle Industry	387
Weenen	167
Weenen Irrigation Scheme	428
Wessels Nek	197
Westminster	240
Wests	243
Wharfage	37
Willow Grange	164
Willowford	169
Wildebeest	489
Winkle Spruit	247
Winkle Spruit Irrigation Settlement	430
Winters Kloof	148
Winterton	310
Winterton Irrigation Settlement	429
Witwatersrand	215
Wool and Mohair	409
Wyebank	110
ZEBRAS, NATAL	482
Zoo, Government, Durban	93
Maritzburg	223
ZULULAND, Annexed	21
Extension	277
Concerning	281
ZULUS, THE	447
Language	447
History	447
Traditions	453
Creed	453
Customs	455



NATAL DIRECT LINE OF STEAMERS

(Bullard, King & Co., Owners)

FLEET

	Tonnage
Umona	6,000
Umzumbi	5,000
Umvolosi	4,500
Umsinga	4,500
Umtata	3,500
Umgeni	3,500
Umvoti	3,500
Umtali	3,500
Umfuli	3,300
Umhloti	3,100
Umkuzi	2,800
Umlazi	2,200
Umzinto	2,200



NATAL and LONDON

FORTNIGHTLY DIRECT SERVICE

Bridge Deck Cabins, 29 gns.; First Class 24 gns.; Second Class 17 gns. Return Tickets at reduced rates.

The Steamers of the London Service have Saloon Accommodation amidships on the Main Deck, and are fitted with Electric Light, Bells, and Refrigerators. Qualified Surgeon & Stewardess are carried.

NATAL and INDIA

FORTNIGHTLY SERVICE

Connecting with CHINA and the FAR EAST. Fares: Calcutta. First Class 20 gns.; Second Class 16 gns. Colombo. First Class 18 gns.; Second Class 14 gns. Deck (without food) to Calcutta 5 gns. Colombo 4 gns. Madras & Bombay 5 gns.

King & Sons, Castle Arcade, Durban

(HEAD OFFICE FOR SOUTH AFRICA)

Durban Beach

The Finest Seaside Resort in Africa



Telephone No. 365
P.O. Box, 105
Telegraphic and Cable Address:
"Oceana," Durban

The Hotel Edward

Delightfully situated, stands within 150 yds. from the Beach. The Safety Bathing Enclosure and Military Band Stand being directly opposite the Hotel Verandah. Recently built, tastefully furnished, well fitted throughout with electric light, latest sanitary conveniences, hot and cold water baths, etc., etc.

Terms: 12/6, 15/-, and 21/- per day inclusive. Within five minutes of Railway Station and Mail Steamer sheds. Splendid service of Tram Cars.

Hotel Edward Co.
(Limited)
Durban

DEUTSCHE OST-AFRIKA-LINIE

(GERMAN EAST AFRICAN LINE)



S.S. "KAISER," "KONIG, "KANZLER, and "GERTRUD WOERMANN in DURBAN HARBOUR

— THE FLEET —

	B.R.T.		B.R.T.		B.R.T.
New Steamer	8,100	Muansa	5,800	Gertrud Woermann	6500
General	8,100	Rufidji	5,800	Adolf Woermann	6300
Prinzessin	6,300	Khalif	5,100	(Woermann Linie)	
Admiral	6,300	Markgraf	3,800		
Feldmarschall	6,300	Praesident	3,400		
Prinzregent	6,300	Kanzler	3,000	Rhenania	6,300
Burgermeister	5,900	Sultan	2,900	Windhuk	6,400
Kronprinz	5,700	Kaiser	2,800	(Hamburg-American Line)	
Koenig	4,900	Somali	2,600		
Kommodore	6,000	Kadett	250	Answald	5,400
Usambara	6,000	Adjutant	250	Irmgard	2,500
Emir	5,800			(Hamburg-Bremer-African Line)	

All Mail Steamers are Twin-screw, and are fitted with Wireless Telegraphy.

The S.S. "General" has been fitted with Anti-Rolling Tanks, which invention has proved a great success.

These fine Mail Steamers offer the opportunity to proceed to England and Continent, either via East Coast or West Coast, and very interesting routes can be combined for a trip round Africa.

For fuller particulars apply to—

DEUTSCHE OST-AFRIKA-LINIE

DURBAN and DELAGOA BAY, or AGENTS

Union-Castle Mail Steamship Company, Limited



R.M.S. "BALMORAL CASTLE," 13,361 Tons

THE SOUTH AFRICAN MAILS have been carried by this Company since 1857. The s.s. 'Dane,' a steamer of 530 tons, was the first boat to leave Southampton in September of that year, a contract having been concluded by Her Majesty's Government for a monthly Mail Service to the Cape for a term of five years.

To-day South Africa is served by the same Company with one of the finest Mail Services sailing out of the United Kingdom, the Mail Steamers averaging about 13,000 tons each and the voyage, a distance of 6,000 miles, is performed in a little over sixteen days.

By the inauguration of their new service via the Suez Canal, this Company now circumnavigates the African Continent.

Natal Navigation Collieries and Estate Company

(Limited)

Produces the well-known Standard Steam Coal of Natal. Low in ash, no clinkering, and highest in efficiency. Largest shippers of coal for bunkering weekly Union-Castle Royal Mail Steamers, Durban to Southampton, and H.M. Warships (Durban). Used exclusively for running Natal daily Corridor Mail Trains. Largest sellers of bunker coal at Port Natal.

Exporters to India, Ceylon, Java, Sumutra, Straits Settlements, Madagascar, and Mauritius.

Supply also Washed Nuts, Washed Peas, and Washed Smalls to Electric Light Works, Smitheries, and Foundries.

VISIT OF HIS ROYAL HIGHNESS THE DUKE OF CONNAUGHT TO NATAL, OCTOBER, 1910



ROYAL TRAIN RUN BETWEEN CHARLESTOWN AND DURBAN ON **NAVIGATION COAL**

"*Divisional Superintendent* "*Durban, 18/10/10*
"*South African Railways, Durban*
"*To Manager, Natal Navigation Collieries*

"*To prevent possibility of hitch to Royal Train, and to maintain scheduled*
"*running time, send truck of your Standard Coal, labelled 'For Royal Train*
"*Purposes,' to Estcourt and Charlestown*"

AGENTS:

Capetown, Port Elizabeth, and East London: Messrs. Mitchell, Cotts & Co.
Durban: Messrs. Wm. Cotts & Co.
London: Messrs. Mitchell, Cotts & Co., 4 London Wall Buildings, E.C.

HEAD OFFICE:

25-27 Natal Bank Chambers Durban

Mine:
Near Hatting Spruit Station, Natal

Union-Castle Mail Steamship Company, Limited



R.M.S. "BALMORAL CASTLE, 13.361 Tons

THE SOUTH AFRICAN MAILS have been carried by this Company since 1857. The s.s. 'Dane,' a steamer of 530 tons, was the first boat to leave Southampton in September of that year, a contract having been concluded by Her Majesty's Government for a monthly Mail Service to the Cape for a term of five years.

To-day South Africa is served by the same Company with one of the finest Mail Services sailing out of the United Kingdom, the Mail Steamers averaging about 13,000 tons each and the voyage, a distance of 6,000 miles, is performed in a little over sixteen days.

By the inauguration of their new service via the Suez Canal, this Company now circumnavigates the African Continent.

Natal Navigation Collieries and Estate Company

(Limited)

Produces the well known Standard Steam Coal of Natal. Low in ash, no clinkering, and highest in efficiency. Largest shippers of coal for bunkering weekly Union Castle Royal Mail Steamers, Durban to Southampton, and H.M. Warships (Durban). Used exclusively for running Natal daily Corridor Mail Trains. Largest sellers of bunker coal at Port Natal.

Exporters to India, Ceylon, Java, Sumutra, Straits Settlements, Madagascar, and Mauritius.

Supply also Washed Nuts, Washed Peas, and Washed Smalls to Electric Light Works, Smitheries, and Foundries.

VISIT OF HIS ROYAL HIGHNESS THE DUKE OF CONNAUGHT TO NATAL, OCTOBER, 1910



ROYAL TRAIN RUN BETWEEN CHARLESTOWN AND DURBAN ON **NAVIGATION COAL**

"Divisional Superintendent
"South African Railways, Durban
"To Manager, Natal Navigation Collieries

"Durban, 18/10/10

"To prevent possibility of hitch to Royal Train, and to maintain scheduled "running time, send truck of your Standard Coal, labelled 'For Royal Train "Purposes,' to Estcourt and Charlestown"

AGENTS:

Capetown, Port Elizabeth, and East London: Messrs. Mitchell, Cotts & Co.
Durban: Messrs. Wm. Cotts & Co.
London: Messrs. Mitchell, Cotts & Co., 4 London Wall Buildings, E.C.

HEAD OFFICE:

25-27 Natal Bank Chambers Durban

Mine:
Near Hatting Spruit Station, Natal

S·A·R
PRINTING
WORKS
DURBAN.

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

DT
868
T3

Tatlow, A. H.
Natal province

UTL AT DOWNSVIEW
D RANGE BAY SHLF POS ITEM C
39 16 27 15 11 020 4